

110TH CONGRESS  
1ST SESSION

# H. R. 2556

To enhance the energy security of the United States by promoting biofuels, energy efficiency, and carbon capture and storage, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MAY 24, 2007

Mrs. WILSON of New Mexico introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Science and Technology, Transportation and Infrastructure, Oversight and Government Reform, and Financial Services, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To enhance the energy security of the United States by promoting biofuels, energy efficiency, and carbon capture and storage, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4       (a) SHORT TITLE.—This Act may be cited as the  
5       “Energy Savings Act of 2007”.

6       (b) TABLE OF CONTENTS.—The table of contents of  
7       this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Definition of Secretary.

## TITLE I—BIOFUELS FOR ENERGY SECURITY AND TRANSPORTATION

- Sec. 101. Short title.
- Sec. 102. Definitions.

### Subtitle A—Renewable Fuel Standard

- Sec. 111. Renewable fuel standard.
- Sec. 112. Production of renewable fuel using renewable energy.

### Subtitle B—Renewable Fuels Infrastructure

- Sec. 121. Infrastructure pilot program for renewable fuels.
- Sec. 122. Bioenergy research and development.
- Sec. 123. Bioresearch centers for systems biology program.
- Sec. 124. Loan guarantees for renewable fuel facilities.
- Sec. 125. Grants for renewable fuel production research and development in certain States.
- Sec. 126. Grants for infrastructure for transportation of biomass to local biorefineries.
- Sec. 127. Biorefinery information center.
- Sec. 128. Alternative fuel database and materials.
- Sec. 129. Fuel tank cap labeling requirement.
- Sec. 130. Biodiesel.

### Subtitle C—Studies

- Sec. 141. Study of advanced biofuels technologies.
- Sec. 142. Study of increased consumption of ethanol-blended gasoline with higher levels of ethanol.
- Sec. 143. Pipeline feasibility study.
- Sec. 144. Study of optimization of flexible fueled vehicles to use E-85 fuel.
- Sec. 145. Study of credits for use of renewable electricity in electric vehicles.
- Sec. 146. Study of engine durability associated with the use of biodiesel.
- Sec. 147. Study of incentives for renewable fuels.
- Sec. 148. Study of streamlined lifecycle analysis tools for the evaluation of renewable carbon content of biofuels.
- Sec. 149. Study of the adequacy of railroad transportation of domestically-produced renewable fuel.
- Sec. 150. Study of effects of ethanol-blended gasoline on off road vehicles.

## TITLE II—ENERGY EFFICIENCY PROMOTION

- Sec. 201. Short title.

### Subtitle A—Promoting Advanced Lighting Technologies

- Sec. 211. Accelerated procurement of energy efficient lighting.
- Sec. 212. Incandescent reflector lamp efficiency standards.
- Sec. 213. Bright Tomorrow Lighting Prizes.
- Sec. 214. Renewable energy construction grants.

### Subtitle B—Expediting New Energy Efficiency Standards

- Sec. 221. Definition of energy conservation standard.
- Sec. 222. Regional efficiency standards for heating and cooling products.
- Sec. 223. Furnace fan rulemaking.
- Sec. 224. Expedited rulemakings.
- Sec. 225. Periodic reviews.
- Sec. 226. Energy efficiency labeling for consumer products.
- Sec. 227. Residential boiler efficiency standards.
- Sec. 228. Technical corrections.
- Sec. 229. Electric motor efficiency standards.
- Sec. 230. Energy standards for home appliances.
- Sec. 231. Improved energy efficiency for appliances and buildings in cold climates.
- Sec. 232. Deployment of new technologies for high-efficiency consumer products.
- Sec. 233. Industrial efficiency program.

Subtitle C—Promoting High Efficiency Vehicles, Advanced Batteries, and Energy Storage

- Sec. 241. Lightweight materials research and development.
- Sec. 242. Loan guarantees for fuel-efficient automobile parts manufacturers.
- Sec. 243. Advanced technology vehicles manufacturing incentive program.
- Sec. 244. Energy storage competitiveness.
- Sec. 245. Advanced transportation technology program.

Subtitle D—Setting Energy Efficiency Goals

- Sec. 251. National goals for energy savings in transportation.
- Sec. 252. National energy efficiency improvement goals.
- Sec. 253. National media campaign.
- Sec. 254. Modernization of electricity grid system.

Subtitle E—Promoting Federal Leadership in Energy Efficiency and Renewable Energy

- Sec. 261. Federal fleet conservation requirements.
- Sec. 262. Federal requirement to purchase electricity generated by renewable energy.
- Sec. 263. Energy savings performance contracts.
- Sec. 264. Energy management requirements for Federal buildings.
- Sec. 265. Combined heat and power and district energy installations at Federal sites.
- Sec. 266. Federal building energy efficiency performance standards.
- Sec. 267. Application of International Energy Conservation Code to public and assisted housing.
- Sec. 268. Energy efficient commercial buildings initiative.

Subtitle F—Assisting State and Local Governments in Energy Efficiency

- Sec. 271. Weatherization assistance for low-income persons.
- Sec. 272. State energy conservation plans.
- Sec. 273. Utility energy efficiency programs.
- Sec. 274. Energy efficiency and demand response program assistance.
- Sec. 275. Energy and environmental block grant.
- Sec. 276. Energy sustainability and efficiency grants for institutions of higher education.
- Sec. 277. Workforce training.

Sec. 278. Assistance to States to reduce school bus idling.

TITLE III—CARBON CAPTURE AND STORAGE RESEARCH,  
DEVELOPMENT, AND DEMONSTRATION

Sec. 301. Short title.

Sec. 302. Carbon capture and storage research, development, and demonstration program.

Sec. 303. Carbon dioxide storage capacity assessment.

Sec. 304. Carbon capture and storage initiative.

**1 SEC. 2. DEFINITION OF SECRETARY.**

2       In this Act, the term “Secretary” means the Sec-  
3 retary of Energy.

**4 TITLE I—BIOFUELS FOR ENERGY**  
**5 SECURITY AND TRANSPORTATION**  
**6 TATION**

**7 SEC. 101. SHORT TITLE.**

8       This title may be cited as the “Biofuels for Energy  
9 Security and Transportation Act of 2007”.

**10 SEC. 102. DEFINITIONS.**

11       In this title:

12               (1) ADVANCED BIOFUEL.—

13                       (A) IN GENERAL.—The term “advanced  
14 biofuel” means fuel derived from renewable bio-  
15 mass other than corn starch.

16                       (B) INCLUSIONS.—The term “advanced  
17 biofuel” includes—

18                               (i) ethanol derived from cellulose,  
19 hemicellulose, or lignin;

1 (ii) ethanol derived from sugar or  
2 starch, other than ethanol derived from  
3 corn starch;

4 (iii) ethanol derived from waste mate-  
5 rial, including crop residue, other vegeta-  
6 tive waste material, animal waste, and food  
7 waste and yard waste;

8 (iv) diesel-equivalent fuel derived from  
9 renewable biomass, including vegetable oil  
10 and animal fat;

11 (v) biogas produced through the con-  
12 version of organic matter from renewable  
13 biomass; and

14 (vi) butanol or higher alcohols pro-  
15 duced through the conversion of organic  
16 matter from renewable biomass.

17 (2) CELLULOSIC BIOMASS ETHANOL.—The  
18 term “cellulosic biomass ethanol” means ethanol de-  
19 rived from any cellulose, hemicellulose, or lignin that  
20 is derived from renewable biomass.

21 (3) CONVENTIONAL BIOFUEL.—The term “con-  
22 ventional biofuel” means ethanol derived from corn  
23 starch.

24 (4) RENEWABLE BIOMASS.—The term “renew-  
25 able biomass” means—

1 (A) biomass (as defined by section 210 of  
2 the Energy Policy Act of 2005 (42 U.S.C.  
3 15855)) (excluding the bole of old-growth trees  
4 of a forest from the late successional state of  
5 forest development) that is harvested where  
6 permitted by law and in accordance with appli-  
7 cable land management plans from—

8 (i) National Forest System land; or

9 (ii) public lands (as defined in section  
10 103 of the Federal Land Policy and Man-  
11 agement Act of 1976 (43 U.S.C. 1702));

12 or

13 (B) any organic matter that is available on  
14 a renewable or recurring basis from non-Fed-  
15 eral land or from land belonging to an Indian  
16 tribe, or an Indian individual, that is held in  
17 trust by the United States or subject to a re-  
18 striction against alienation imposed by the  
19 United States, including—

20 (i) renewable plant material, includ-  
21 ing—

22 (I) feed grains;

23 (II) other agricultural commod-  
24 ities;

25 (III) other plants and trees; and

- 1 (IV) algae; and  
2 (ii) waste material, including—  
3 (I) crop residue;  
4 (II) other vegetative waste mate-  
5 rial (including wood waste and wood  
6 residues);  
7 (III) animal waste and byprod-  
8 ucts (including fats, oils, greases, and  
9 manure); and  
10 (IV) food waste and yard waste.

11 (5) RENEWABLE FUEL.—

12 (A) IN GENERAL.—The term “renewable  
13 fuel” means motor vehicle fuel, boiler fuel, or  
14 home heating fuel that is—

- 15 (i) produced from renewable biomass;  
16 and  
17 (ii) used to replace or reduce the  
18 quantity of fossil fuel present in a fuel or  
19 fuel mixture used to operate a motor vehi-  
20 cle, boiler, or furnace.

21 (B) INCLUSION.—The term “renewable  
22 fuel” includes—

- 23 (i) conventional biofuel; and  
24 (ii) advanced biofuel.

(6) SMALL REFINERY.—The term “small refinery” means a refinery for which the average aggregate daily crude oil throughput for a calendar year (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

## **Subtitle A—Renewable Fuel Standard**

### **SEC. 111. RENEWABLE FUEL STANDARD.**

#### **(a) RENEWABLE FUEL PROGRAM.—**

##### **(1) REGULATIONS.—**

(A) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the President shall promulgate regulations to ensure that motor vehicle fuel, home heating oil, and boiler fuel sold or introduced into commerce in the United States (except in non-contiguous States or territories), on an annual average basis, contains the applicable volume of renewable fuel determined in accordance with paragraph (2).

(B) PROVISIONS OF REGULATIONS.—Regardless of the date of promulgation, the regulations promulgated under subparagraph (A)—



(i) shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate, to ensure that—

(I) the requirements of this subsection are met; and

(II) renewable fuels produced from facilities built after the date of enactment of this Act achieve at least a 20 percent reduction in life cycle greenhouse gas emissions compared to gasoline; but

(ii) shall not—

(I) restrict geographic areas in the contiguous United States in which renewable fuel may be used; or

(II) impose any per-gallon obligation for the use of renewable fuel.

(C) RELATIONSHIP TO OTHER REGULATIONS.—Regulations promulgated under this paragraph shall, to the maximum extent practicable, incorporate the program structure, compliance, and reporting requirements established under the final regulations promulgated to implement the renewable fuel program established

1 by the amendment made by section 1501(a)(2)  
 2 of the Energy Policy Act of 2005 (Public Law  
 3 109–58; 119 Stat. 1067).

4 (2) APPLICABLE VOLUME.—

5 (A) CALENDAR YEARS 2008 THROUGH  
 6 2022.—

7 (i) RENEWABLE FUEL.—For the pur-  
 8 pose of paragraph (1), subject to clause  
 9 (ii), the applicable volume for any of cal-  
 10 endar years 2008 through 2022 shall be  
 11 determined in accordance with the fol-  
 12 lowing table:

| <b>Calendar year:</b> | <b>Applicable volume of<br/>renewable fuel<br/>(in billions of gallons):</b> |
|-----------------------|--|
| 2008 .....            | 8.5  |
| 2009 .....            | 10.5   |
| 2010 .....            | 12.0   |
| 2011 .....            | 12.6   |
| 2012 .....            | 13.2   |
| 2013 .....            | 13.8   |
| 2014 .....            | 14.4   |
| 2015 .....            | 15.0   |
| 2016 .....            | 18.0   |
| 2017 .....            | 21.0   |
| 2018 .....            | 24.0   |
| 2019 .....            | 27.0   |
| 2020 .....            | 30.0   |
| 2021 .....            | 33.0   |
| 2022 .....            | 36.0.  |

13 (ii) ADVANCED BIOFUELS.—For the  
 14 purpose of paragraph (1), of the volume of  
 15 renewable fuel required under clause (i),  
 16 the applicable volume for any of calendar  
 17 years 2016 through 2022 for advanced

1                   biofuels shall be determined in accordance  
2                   with the following table:

| <b>Calendar year:</b> | <b>Applicable volume of<br/>advanced biofuels<br/>(in billions of gallons):</b> |
|-----------------------|---|
| 2016 .....            | 3.0   |
| 2017 .....            | 6.0   |
| 2018 .....            | 9.0   |
| 2019 .....            | 12.0  |
| 2020 .....            | 15.0  |
| 2021 .....            | 18.0  |
| 2022 .....            | 21.0.   |

3                   (B) CALENDAR YEAR 2023 AND THERE-  
4                   AFTER.—Subject to subparagraph (C), for the  
5                   purposes of paragraph (1), the applicable vol-  
6                   ume for calendar year 2023 and each calendar  
7                   year thereafter shall be determined by the  
8                   President, in coordination with the Secretary of  
9                   Energy, the Secretary of Agriculture, and the  
10                  Administrator of the Environmental Protection  
11                  Agency, based on a review of the implementa-  
12                  tion of the program during calendar years 2007  
13                  through 2022, including a review of—

14                         (i) the impact of renewable fuels on  
15                         the energy security of the United States;

16                         (ii) the expected annual rate of future  
17                         production of renewable fuels, including  
18                         advanced biofuels;

19                         (iii) the impact of renewable fuels on  
20                         the infrastructure of the United States, in-

cluding deliverability of materials, goods,  
and products other than renewable fuel,  
and the sufficiency of infrastructure to de-  
liver renewable fuel; and

(iv) the impact of the use of renewable  
fuels on other factors, including job cre-  
ation, the price and supply of agricultural  
commodities, rural economic development,  
and the environment.

(C) MINIMUM APPLICABLE VOLUME.—Sub-  
ject to subparagraph (D), for the purpose of  
paragraph (1), the applicable volume for cal-  
endar year 2023 and each calendar year there-  
after shall be equal to the product obtained by  
multiplying—

(i) the number of gallons of gasoline  
that the President estimates will be sold or  
introduced into commerce in the calendar  
year; and

(ii) the ratio that—

(I) 36,000,000,000 gallons of re-  
newable fuel; bears to

(II) the number of gallons of gas-  
oline sold or introduced into com-  
merce in calendar year 2022.

1 (D) MINIMUM PERCENTAGE OF ADVANCED  
2 BIOFUEL.—For the purpose of paragraph (1)  
3 and subparagraph (C), at least 60 percent of  
4 the minimum applicable volume for calendar  
5 year 2023 and each calendar year thereafter  
6 shall be advanced biofuel.

7 (b) APPLICABLE PERCENTAGES.—

8 (1) PROVISION OF ESTIMATE OF VOLUMES OF  
9 GASOLINE SALES.—Not later than October 31 of  
10 each of calendar years 2008 through 2021, the Ad-  
11 ministrator of the Energy Information Administra-  
12 tion shall provide to the President an estimate, with  
13 respect to the following calendar year, of the vol-  
14 umes of gasoline projected to be sold or introduced  
15 into commerce in the United States.

16 (2) DETERMINATION OF APPLICABLE PERCENT-  
17 AGES.—

18 (A) IN GENERAL.—Not later than Novem-  
19 ber 30 of each of calendar years 2008 through  
20 2022, based on the estimate provided under  
21 paragraph (1), the President shall determine  
22 and publish in the Federal Register, with re-  
23 spect to the following calendar year, the renew-  
24 able fuel obligation that ensures that the re-  
25 quirements of subsection (a) are met.

1 (B) REQUIRED ELEMENTS.—The renew-  
2 able fuel obligation determined for a calendar  
3 year under subparagraph (A) shall—

4 (i) be applicable to refineries, blend-  
5 ers, and importers, as appropriate;

6 (ii) be expressed in terms of a volume  
7 percentage of gasoline sold or introduced  
8 into commerce in the United States; and

9 (iii) subject to paragraph (3)(A), con-  
10 sist of a single applicable percentage that  
11 applies to all categories of persons speci-  
12 fied in clause (i).

13 (3) ADJUSTMENTS.—In determining the appli-  
14 cable percentage for a calendar year, the President  
15 shall make adjustments—

16 (A) to prevent the imposition of redundant  
17 obligations on any person specified in para-  
18 graph (2)(B)(i); and

19 (B) to account for the use of renewable  
20 fuel during the previous calendar year by small  
21 refineries that are exempt under subsection (g).

22 (c) VOLUME CONVERSION FACTORS FOR RENEW-  
23 ABLE FUELS BASED ON ENERGY CONTENT OR REQUIRE-  
24 MENTS.—

1           (1) IN GENERAL.—For the purpose of sub-  
2           section (a), the President shall assign values to spe-  
3           cific types of advanced biofuels for the purpose of  
4           satisfying the fuel volume requirements of subsection  
5           (a)(2) in accordance with this subsection.

6           (2) ENERGY CONTENT RELATIVE TO ETH-  
7           ANOL.—For advanced biofuel, 1 gallon of the ad-  
8           vanced biofuel shall be considered to be the equiva-  
9           lent of 1 gallon of renewable fuel multiplied by the  
10          ratio that—

11                 (A) the number of British thermal units of  
12                 energy produced by the combustion of 1 gallon  
13                 of the advanced biofuel (as measured under  
14                 conditions determined by the Secretary); bears  
15                 to

16                 (B) the number of British thermal units of  
17                 energy produced by the combustion of 1 gallon  
18                 of pure ethanol (as measured under conditions  
19                 determined by the Secretary to be comparable  
20                 to conditions described in subparagraph (A)).

21           (3) TRANSITIONAL ENERGY-RELATED CONVER-  
22           SION FACTORS FOR CELLULOSIC BIOMASS ETH-  
23           ANOL.—For any of calendar years 2008 through  
24           2015, 1 gallon of cellulosic biomass ethanol shall be

1 considered to be the equivalent of 2.5 gallons of re-  
2 newable fuel.

3 (d) CREDIT PROGRAM.—

4 (1) IN GENERAL.—The President, in consulta-  
5 tion with the Secretary and the Administrator of the  
6 Environmental Protection Agency, shall implement a  
7 credit program to manage the renewable fuel re-  
8 quirement of this section in a manner consistent  
9 with the credit program established by the amend-  
10 ment made by section 1501(a)(2) of the Energy Pol-  
11 icy Act of 2005 (Public Law 109–58; 119 Stat.  
12 1067).

13 (2) MARKET TRANSPARENCY.—In carrying out  
14 the credit program under this subsection, the Presi-  
15 dent shall facilitate price transparency in markets  
16 for the sale and trade of credits, with due regard for  
17 the public interest, the integrity of those markets,  
18 fair competition, and the protection of consumers  
19 and agricultural producers.

20 (e) SEASONAL VARIATIONS IN RENEWABLE FUEL  
21 USE.—

22 (1) STUDY.—For each of calendar years 2008  
23 through 2022, the Administrator of the Energy In-  
24 formation Administration shall conduct a study of  
25 renewable fuel blending to determine whether there



1 are excessive seasonal variations in the use of renew-  
2 able fuel.

3 (2) REGULATION OF EXCESSIVE SEASONAL  
4 VARIATIONS.—If, for any calendar year, the Admin-  
5 istrator of the Energy Information Administration,  
6 based on the study under paragraph (1), makes the  
7 determinations specified in paragraph (3), the Presi-  
8 dent shall promulgate regulations to ensure that 25  
9 percent or more of the quantity of renewable fuel  
10 necessary to meet the requirements of subsection (a)  
11 is used during each of the 2 periods specified in  
12 paragraph (4) of each subsequent calendar year.

13 (3) DETERMINATIONS.—The determinations re-  
14 ferred to in paragraph (2) are that—

15 (A) less than 25 percent of the quantity of  
16 renewable fuel necessary to meet the require-  
17 ments of subsection (a) has been used during 1  
18 of the 2 periods specified in paragraph (4) of  
19 the calendar year;

20 (B) a pattern of excessive seasonal vari-  
21 ation described in subparagraph (A) will con-  
22 tinue in subsequent calendar years; and

23 (C) promulgating regulations or other re-  
24 quirements to impose a 25 percent or more sea-

1           sonal use of renewable fuels will not signifi-  
2           cantly—

3                   (i) increase the price of motor fuels to  
4           the consumer; or

5                   (ii) prevent or interfere with the at-  
6           tainment of national ambient air quality  
7           standards.

8           (4) PERIODS.—The 2 periods referred to in this  
9           subsection are—

10                   (A) April through September; and

11                   (B) January through March and October  
12           through December.

13           (f) WAIVERS.—

14                   (1) IN GENERAL.—The President, in consulta-  
15           tion with the Secretary of Energy, the Secretary of  
16           Agriculture, and the Administrator of the Environ-  
17           mental Protection Agency, may waive the require-  
18           ments of subsection (a) in whole or in part on peti-  
19           tion by one or more States by reducing the national  
20           quantity of renewable fuel required under subsection  
21           (a), based on a determination by the President  
22           (after public notice and opportunity for comment),  
23           that—

24                   (A) implementation of the requirement  
25           would severely harm the economy or environ-

1           ment of a State, a region, or the United States;  
2           or

3           (B) extreme and unusual circumstances  
4           exist that prevent distribution of an adequate  
5           supply of domestically-produced renewable fuel  
6           to consumers in the United States.

7           (2) PETITIONS FOR WAIVERS.—The President,  
8           in consultation with the Secretary of Energy, the  
9           Secretary of Agriculture, and the Administrator of  
10          the Environmental Protection Agency, shall approve  
11          or disapprove a State petition for a waiver of the re-  
12          quirements of subsection (a) within 90 days after  
13          the date on which the petition is received by the  
14          President.

15          (3) TERMINATION OF WAIVERS.—A waiver  
16          granted under paragraph (1) shall terminate after 1  
17          year, but may be renewed by the President after  
18          consultation with the Secretary of Energy, the Sec-  
19          retary of Agriculture, and the Administrator of the  
20          Environmental Protection Agency.

21          (4) REPORT TO CONGRESS.—If the Secretary  
22          makes a determination under paragraph (1)(B) that  
23          railroad transportation of domestically-produced re-  
24          newable fuel is inadequate, based on either the serv-  
25          ice provided by, or the price of, the railroad trans-

portation, the President shall submit to Congress a report that describes—

(A) the actions the Federal Government is taking, or will take, to address the inadequacy, including a description of the specific powers of the applicable Federal agencies; and

(B) if the President finds that there are inadequate Federal powers to address the railroad service or pricing inadequacies, recommendations for legislation to provide appropriate powers to Federal agencies to address the inadequacies.

(g) SMALL REFINERIES.—

(1) TEMPORARY EXEMPTION.—

(A) IN GENERAL.—The requirements of subsection (a) shall not apply to—

(i) small refineries (other than a small refinery described in clause (ii)) until calendar year 2013; and

(ii) small refineries owned by a small business refiner (as defined in section 45H(c) of the Internal Revenue Code of 1986) until calendar year 2015.

(B) EXTENSION OF EXEMPTION.—

1 (i) STUDY BY SECRETARY.—Not later  
2 than December 31, 2008, the Secretary  
3 shall submit to the President and Congress  
4 a report describing the results of a study  
5 to determine whether compliance with the  
6 requirements of subsection (a) would im-  
7 pose a disproportionate economic hardship  
8 on small refineries.

9 (ii) EXTENSION OF EXEMPTION.—In  
10 the case of a small refinery that the Sec-  
11 retary determines under clause (i) would  
12 be subject to a disproportionate economic  
13 hardship if required to comply with sub-  
14 section (a), the President shall extend the  
15 exemption under subparagraph (A) for the  
16 small refinery for a period of not less than  
17 2 additional years.

18 (2) PETITIONS BASED ON DISPROPORTIONATE  
19 ECONOMIC HARDSHIP.—

20 (A) EXTENSION OF EXEMPTION.—A small  
21 refinery may at any time petition the President  
22 for an extension of the exemption under para-  
23 graph (1) for the reason of disproportionate  
24 economic hardship.

1 (B) EVALUATION OF PETITIONS.—In eval-  
2 uating a petition under subparagraph (A), the  
3 President, in consultation with the Secretary,  
4 shall consider the findings of the study under  
5 paragraph (1)(B) and other economic factors.

6 (C) DEADLINE FOR ACTION ON PETI-  
7 TIONS.—The President shall act on any petition  
8 submitted by a small refinery for a hardship ex-  
9 emption not later than 90 days after the date  
10 of receipt of the petition.

11 (3) OPT-IN FOR SMALL REFINERIES.—A small  
12 refinery shall be subject to the requirements of sub-  
13 section (a) if the small refinery notifies the Presi-  
14 dent that the small refinery waives the exemption  
15 under paragraph (1).

16 (h) PENALTIES AND ENFORCEMENT.—

17 (1) CIVIL PENALTIES.—

18 (A) IN GENERAL.—Any person that vio-  
19 lates a regulation promulgated under subsection  
20 (a), or that fails to furnish any information re-  
21 quired under such a regulation, shall be liable  
22 to the United States for a civil penalty of not  
23 more than the total of—

24 (i) \$25,000 for each day of the viola-  
25 tion; and

1 (ii) the amount of economic benefit or  
2 savings received by the person resulting  
3 from the violation, as determined by the  
4 President.

5 (B) COLLECTION.—Civil penalties under  
6 subparagraph (A) shall be assessed by, and col-  
7 lected in a civil action brought by, the Secretary  
8 or such other officer of the United States as is  
9 designated by the President.

10 (2) INJUNCTIVE AUTHORITY.—

11 (A) IN GENERAL.—The district courts of  
12 the United States shall have jurisdiction to—

13 (i) restrain a violation of a regulation  
14 promulgated under subsection (a);

15 (ii) award other appropriate relief;  
16 and

17 (iii) compel the furnishing of informa-  
18 tion required under the regulation.

19 (B) ACTIONS.—An action to restrain such  
20 violations and compel such actions shall be  
21 brought by and in the name of the United  
22 States.

23 (C) SUBPOENAS.—In the action, a sub-  
24 poena for a witness who is required to attend

1 a district court in any district may apply in any  
2 other district.

3 (i) VOLUNTARY LABELING PROGRAM.—

4 (1) IN GENERAL.—The President shall establish  
5 criteria for a system of voluntary labeling of renew-  
6 able fuels based on life cycle greenhouse gas emis-  
7 sions.

8 (2) CONSUMER EDUCATION.—The President  
9 shall ensure that the labeling system under this sub-  
10 section provides useful information to consumers  
11 making fuel purchases.

12 (3) FLEXIBILITY.—In carrying out this sub-  
13 section, the President may establish more than 1  
14 label, as appropriate.

15 (j) EFFECTIVE DATE.—Except as otherwise specifi-  
16 cally provided in this section, this section takes effect on  
17 January 1, 2008.

18 **SEC. 112. PRODUCTION OF RENEWABLE FUEL USING RE-**  
19 **NEWABLE ENERGY.**

20 (a) DEFINITIONS.—In this section:

21 (1) FACILITY.—The term “facility” means a fa-  
22 cility used for the production of renewable fuel.

23 (2) RENEWABLE ENERGY.—

24 (A) IN GENERAL.—The term “renewable  
25 energy” has the meaning given the term in sec-



1           tion 203(b) of the Energy Policy Act of 2005  
2           (42 U.S.C. 15852(b)).

3           (B) INCLUSION.—The term “renewable en-  
4           ergy” includes biogas produced through the  
5           conversion of organic matter from renewable  
6           biomass.

7           (b) ADDITIONAL CREDIT.—

8           (1) IN GENERAL.—The President shall provide  
9           a credit under the program established under section  
10          111(d) to the owner of a facility that uses renewable  
11          energy to displace more than 90 percent of the fossil  
12          fuel normally used in the production of renewable  
13          fuel.

14          (2) CREDIT AMOUNT.—The President may pro-  
15          vide the credit in a quantity that is not more than  
16          the equivalent of 1.5 gallons of renewable fuel for  
17          each gallon of renewable fuel produced in a facility  
18          described in paragraph (1).

19               **Subtitle B—Renewable Fuels**  
20               **Infrastructure**

21       **SEC. 121. INFRASTRUCTURE PILOT PROGRAM FOR RENEW-**  
22       **ABLE FUELS.**

23          (a) IN GENERAL.—The Secretary, in consultation  
24          with the Secretary of Transportation and the Adminis-  
25          trator of the Environmental Protection Agency, shall es-

1    establish a competitive grant pilot program (referred to in  
2    this section as the “pilot program”), to be administered  
3    through the Vehicle Technology Deployment Program of  
4    the Department of Energy, to provide not more than 10  
5    geographically-dispersed project grants to State govern-  
6    ments, Indian tribal governments, local governments, met-  
7    ropolitan transportation authorities, or partnerships of  
8    those entities to carry out 1 or more projects for the pur-  
9    poses described in subsection (b).

10        (b) GRANT PURPOSES.—A grant under this section  
11    shall be used for the establishment of refueling infrastruc-  
12    ture corridors, as designated by the Secretary, for gasoline  
13    blends that contain not less than 11 percent, and not more  
14    than 85 percent, renewable fuel or diesel fuel that contains  
15    at least 10 percent renewable fuel, including—

16            (1) installation of infrastructure and equipment  
17        necessary to ensure adequate distribution of renew-  
18        able fuels within the corridor;

19            (2) installation of infrastructure and equipment  
20        necessary to directly support vehicles powered by re-  
21        newable fuels; and

22            (3) operation and maintenance of infrastructure  
23        and equipment installed as part of a project funded  
24        by the grant.

25        (c) APPLICATIONS.—

1 (1) REQUIREMENTS.—

2 (A) IN GENERAL.—Subject to subpara-  
3 graph (B), not later than 90 days after the date  
4 of enactment of this Act, the Secretary shall  
5 issue requirements for use in applying for  
6 grants under the pilot program.

7 (B) MINIMUM REQUIREMENTS.—At a min-  
8 imum, the Secretary shall require that an appli-  
9 cation for a grant under this section—

10 (i) be submitted by—

11 (I) the head of a State, tribal, or  
12 local government or a metropolitan  
13 transportation authority, or any com-  
14 bination of those entities; and

15 (II) a registered participant in  
16 the Vehicle Technology Deployment  
17 Program of the Department of En-  
18 ergy; and

19 (ii) include—

20 (I) a description of the project  
21 proposed in the application, including  
22 the ways in which the project meets  
23 the requirements of this section;

24 (II) an estimate of the degree of  
25 use of the project, including the esti-

1 mated size of fleet of vehicles operated  
2 with renewable fuel available within  
3 the geographic region of the corridor,  
4 measured as a total quantity and a  
5 percentage;

6 (III) an estimate of the potential  
7 petroleum displaced as a result of the  
8 project (measured as a total quantity  
9 and a percentage), and a plan to col-  
10 lect and disseminate petroleum dis-  
11 placement and other relevant data re-  
12 lating to the project to be funded  
13 under the grant, over the expected life  
14 of the project;

15 (IV) a description of the means  
16 by which the project will be sustain-  
17 able without Federal assistance after  
18 the completion of the term of the  
19 grant;

20 (V) a complete description of the  
21 costs of the project, including acquisi-  
22 tion, construction, operation, and  
23 maintenance costs over the expected  
24 life of the project; and

1 (VI) a description of which costs  
2 of the project will be supported by  
3 Federal assistance under this sub-  
4 section.

5 (2) PARTNERS.—An applicant under paragraph  
6 (1) may carry out a project under the pilot program  
7 in partnership with public and private entities.

8 (d) SELECTION CRITERIA.—In evaluating applica-  
9 tions under the pilot program, the Secretary shall—

10 (1) consider the experience of each applicant  
11 with previous, similar projects; and

12 (2) give priority consideration to applications  
13 that—

14 (A) are most likely to maximize displace-  
15 ment of petroleum consumption, measured as a  
16 total quantity and a percentage;

17 (B) are best able to incorporate existing  
18 infrastructure while maximizing, to the extent  
19 practicable, the use of advanced biofuels;

20 (C) demonstrate the greatest commitment  
21 on the part of the applicant to ensure funding  
22 for the proposed project and the greatest likeli-  
23 hood that the project will be maintained or ex-  
24 panded after Federal assistance under this sub-  
25 section is completed;

1 (D) represent a partnership of public and  
2 private entities; and

3 (E) exceed the minimum requirements of  
4 subsection (c)(1)(B).

5 (e) PILOT PROJECT REQUIREMENTS.—

6 (1) MAXIMUM AMOUNT.—The Secretary shall  
7 provide not more than \$20,000,000 in Federal as-  
8 sistance under the pilot program to any applicant.

9 (2) COST SHARING.—The non-Federal share of  
10 the cost of any activity relating to renewable fuel in-  
11 frastructure development carried out using funds  
12 from a grant under this section shall be not less  
13 than 20 percent.

14 (3) MAXIMUM PERIOD OF GRANTS.—The Sec-  
15 retary shall not provide funds to any applicant under  
16 the pilot program for more than 2 years.

17 (4) DEPLOYMENT AND DISTRIBUTION.—The  
18 Secretary shall seek, to the maximum extent prac-  
19 ticable, to ensure a broad geographic distribution of  
20 project sites funded by grants under this section.

21 (5) TRANSFER OF INFORMATION AND KNOWL-  
22 EDGE.—The Secretary shall establish mechanisms to  
23 ensure that the information and knowledge gained  
24 by participants in the pilot program are transferred  
25 among the pilot program participants and to other

1 interested parties, including other applicants that  
2 submitted applications.

3 (f) SCHEDULE.—

4 (1) INITIAL GRANTS.—

5 (A) IN GENERAL.—Not later than 90 days  
6 after the date of enactment of this Act, the Sec-  
7 retary shall publish in the Federal Register,  
8 Commerce Business Daily, and such other pub-  
9 lications as the Secretary considers to be appro-  
10 priate, a notice and request for applications to  
11 carry out projects under the pilot program.

12 (B) DEADLINE.—An application described  
13 in subparagraph (A) shall be submitted to the  
14 Secretary by not later than 180 days after the  
15 date of publication of the notice under that sub-  
16 paragraph.

17 (C) INITIAL SELECTION.—Not later than  
18 90 days after the date by which applications for  
19 grants are due under subparagraph (B), the  
20 Secretary shall select by competitive, peer-re-  
21 viewed proposal up to 5 applications for  
22 projects to be awarded a grant under the pilot  
23 program.

24 (2) ADDITIONAL GRANTS.—

1 (A) IN GENERAL.—Not later than 2 years  
2 after the date of enactment of this Act, the Sec-  
3 retary shall publish in the Federal Register,  
4 Commerce Business Daily, and such other pub-  
5 lications as the Secretary considers to be appro-  
6 priate, a notice and request for additional appli-  
7 cations to carry out projects under the pilot  
8 program that incorporate the information and  
9 knowledge obtained through the implementation  
10 of the first round of projects authorized under  
11 the pilot program.

12 (B) DEADLINE.—An application described  
13 in subparagraph (A) shall be submitted to the  
14 Secretary by not later than 180 days after the  
15 date of publication of the notice under that sub-  
16 paragraph.

17 (C) INITIAL SELECTION.—Not later than  
18 90 days after the date by which applications for  
19 grants are due under subparagraph (B), the  
20 Secretary shall select by competitive, peer-re-  
21 viewed proposal such additional applications for  
22 projects to be awarded a grant under the pilot  
23 program as the Secretary determines to be ap-  
24 propriate.

25 (g) REPORTS TO CONGRESS.—



1           (1) INITIAL REPORT.—Not later than 60 days  
2           after the date on which grants are awarded under  
3           this section, the Secretary shall submit to Congress  
4           a report containing—

5                   (A) an identification of the grant recipients  
6                   and a description of the projects to be funded  
7                   under the pilot program;

8                   (B) an identification of other applicants  
9                   that submitted applications for the pilot pro-  
10                  gram but to which funding was not provided;  
11                  and

12                  (C) a description of the mechanisms used  
13                  by the Secretary to ensure that the information  
14                  and knowledge gained by participants in the  
15                  pilot program are transferred among the pilot  
16                  program participants and to other interested  
17                  parties, including other applicants that sub-  
18                  mitted applications.

19           (2) EVALUATION.—Not later than 2 years after  
20           the date of enactment of this Act, and annually  
21           thereafter until the termination of the pilot program,  
22           the Secretary shall submit to Congress a report con-  
23           taining an evaluation of the effectiveness of the pilot  
24           program, including an assessment of the petroleum  
25           displacement and benefits to the environment de-

1 rived from the projects included in the pilot pro-  
 2 gram.

3 (h) AUTHORIZATION OF APPROPRIATIONS.—There is  
 4 authorized to be appropriated to the Secretary to carry  
 5 out this section \$200,000,000, to remain available until  
 6 expended.

7 **SEC. 122. BIOENERGY RESEARCH AND DEVELOPMENT.**

8 Section 931(c) of the Energy Policy Act of 2005 (42  
 9 U.S.C. 16231(c)) is amended—

10 (1) in paragraph (2), by striking  
 11 “\$251,000,000” and inserting “\$377,000,000”; and  
 12 (2) in paragraph (3), by striking  
 13 “\$274,000,000” and inserting “\$398,000,000”.

14 **SEC. 123. BIORESEARCH CENTERS FOR SYSTEMS BIOLOGY**  
 15 **PROGRAM.**

16 Section 977(a)(1) of the Energy Policy Act of 2005  
 17 (42 U.S.C. 16317(a)(1)) is amended by inserting before  
 18 the period at the end the following: “, including the estab-  
 19 lishment of at least 11 bioresearch centers of varying  
 20 sizes, as appropriate, that focus on biofuels, of which at  
 21 least 2 centers shall be located in each of the 4 Petroleum  
 22 Administration for Defense Districts with no subdistricts  
 23 and 1 center shall be located in each of the subdistricts  
 24 of the Petroleum Administration for Defense District with  
 25 subdistricts”.

1 **SEC. 124. LOAN GUARANTEES FOR RENEWABLE FUEL FA-**  
2 **CILITIES.**

3 (a) IN GENERAL.—Section 1703 of the Energy Policy  
4 Act of 2005 (42 U.S.C. 16513) is amended by adding at  
5 the end the following:

6 “(f) RENEWABLE FUEL FACILITIES.—

7 “(1) IN GENERAL.—The Secretary may make  
8 guarantees under this title for projects that produce  
9 advanced biofuel (as defined in section 102 of the  
10 Biofuels for Energy Security and Transportation  
11 Act of 2007).

12 “(2) REQUIREMENTS.—A project under this  
13 subsection shall employ new or significantly im-  
14 proved technologies for the production of renewable  
15 fuels as compared to commercial technologies in  
16 service in the United States at the time that the  
17 guarantee is issued.

18 “(3) ISSUANCE OF FIRST LOAN GUARANTEES.—  
19 The requirement of section 20320(b) of division B  
20 of the Continuing Appropriations Resolution, 2007  
21 (Public Law 109–289, Public Law 110–5), relating  
22 to the issuance of final regulations, shall not apply  
23 to the first 6 guarantees issued under this sub-  
24 section.

25 “(4) PROJECT DESIGN.—A project for which a  
26 guarantee is made under this subsection shall have

1 a project design that has been validated through the  
2 operation of a continuous process pilot facility with  
3 an annual output of at least 50,000 gallons of eth-  
4 anol or the energy equivalent volume of other ad-  
5 vanced biofuels.

6 “(5) MAXIMUM GUARANTEED PRINCIPAL.—The  
7 total principal amount of a loan guaranteed under  
8 this subsection may not exceed \$250,000,000 for a  
9 single facility.

10 “(6) AMOUNT OF GUARANTEE.—The Secretary  
11 shall guarantee 100 percent of the principal and in-  
12 terest due on 1 or more loans made for a facility  
13 that is the subject of the guarantee under paragraph  
14 (3).

15 “(7) DEADLINE.—The Secretary shall approve  
16 or disapprove an application for a guarantee under  
17 this subsection not later than 90 days after the date  
18 of receipt of the application.

19 “(8) REPORT.—Not later than 30 days after  
20 approving or disapproving an application under  
21 paragraph (7), the Secretary shall submit to Con-  
22 gress a report on the approval or disapproval (in-  
23 cluding the reasons for the action).”.

24 (b) IMPROVEMENTS TO UNDERLYING LOAN GUAR-  
25 ANTEE AUTHORITY.—

1           (1) DEFINITION OF COMMERCIAL TECH-  
2           NOLOGY.—Section 1701(1) of the Energy Policy Act  
3           of 2005 (42 U.S.C. 16511(1)) is amended by strik-  
4           ing subparagraph (B) and inserting the following:

5                   “(B) EXCLUSION.—The term ‘commercial  
6           technology’ does not include a technology if the  
7           sole use of the technology is in connection  
8           with—

9                           “(i) a demonstration plant; or

10                           “(ii) a project for which the Secretary  
11                   approved a loan guarantee.”.

12           (2) SPECIFIC APPROPRIATION OR CONTRIBU-  
13           TION.—Section 1702 of the Energy Policy Act of  
14           2005 (42 U.S.C. 16512) is amended by striking sub-  
15           section (b) and inserting the following:

16           “(b) SPECIFIC APPROPRIATION OR CONTRIBU-  
17           TION.—

18                   “(1) IN GENERAL.—No guarantee shall be  
19           made unless—

20                           “(A) an appropriation for the cost has  
21           been made; or

22                           “(B) the Secretary has received from the  
23           borrower a payment in full for the cost of the  
24           obligation and deposited the payment into the  
25           Treasury.

1           “(2) LIMITATION.—The source of payments re-  
2           ceived from a borrower under paragraph (1)(B) shall  
3           not be a loan or other debt obligation that is made  
4           or guaranteed by the Federal Government.

5           “(3) RELATION TO OTHER LAWS.—Section  
6           504(b) of the Federal Credit Reform Act of 1990 (2  
7           U.S.C. 661c(b)) shall not apply to a loan or loan  
8           guarantee made in accordance with paragraph  
9           (1)(B).”.

10           (3) AMOUNT.—Section 1702 of the Energy Pol-  
11           icy Act of 2005 (42 U.S.C. 16512) is amended by  
12           striking subsection (c) and inserting the following:

13           “(c) AMOUNT.—

14           “(1) IN GENERAL.—Subject to paragraph (2),  
15           the Secretary shall guarantee up to 100 percent of  
16           the principal and interest due on 1 or more loans for  
17           a facility that are the subject of the guarantee.

18           “(2) LIMITATION.—The total amount of loans  
19           guaranteed for a facility by the Secretary shall not  
20           exceed 80 percent of the total cost of the facility, as  
21           estimated at the time at which the guarantee is  
22           issued.”.

23           (4) SUBROGATION.—Section 1702(g)(2) of the  
24           Energy Policy Act of 2005 (42 U.S.C. 16512(g)(2))  
25           is amended—

1 (A) by striking subparagraph (B); and

2 (B) by redesignating subparagraph (C) as  
3 subparagraph (B).

4 (5) FEES.—Section 1702(h) of the Energy Pol-  
5 icy Act of 2005 (42 U.S.C. 16512(h)) is amended by  
6 striking paragraph (2) and inserting the following:

7 “(2) AVAILABILITY.—Fees collected under this  
8 subsection shall—

9 “(A) be deposited by the Secretary into a  
10 special fund in the Treasury to be known as the  
11 ‘Incentives For Innovative Technologies Fund’;  
12 and

13 “(B) remain available to the Secretary for  
14 expenditure, without further appropriation or  
15 fiscal year limitation, for administrative ex-  
16 penses incurred in carrying out this title.”.

17 **SEC. 125. GRANTS FOR RENEWABLE FUEL PRODUCTION RE-**  
18 **SEARCH AND DEVELOPMENT IN CERTAIN**  
19 **STATES.**

20 (a) IN GENERAL.—The Secretary shall provide  
21 grants to eligible entities to conduct research into, and de-  
22 velop and implement, renewable fuel production tech-  
23 nologies in States with low rates of ethanol production,  
24 including low rates of production of cellulosic biomass eth-  
25 anol, as determined by the Secretary.

1 (b) ELIGIBILITY.—To be eligible to receive a grant  
2 under the section, an entity shall—

3 (1)(A) be an institution of higher education (as  
4 defined in section 2 of the Energy Policy Act of  
5 2005 (42 U.S.C. 15801)) located in a State de-  
6 scribed in subsection (a);

7 (B) be an institution—

8 (i) referred to in section 532 of the Equity  
9 in Educational Land-Grant Status Act of 1994  
10 (Public Law 103–382; 7 U.S.C. 301 note);

11 (ii) that is eligible for a grant under the  
12 Tribally Controlled College or University Assist-  
13 ance Act of 1978 (25 U.S.C. 1801 et seq.), in-  
14 cluding Diné College; or

15 (iii) that is eligible for a grant under the  
16 Navajo Community College Act (25 U.S.C.  
17 640a et seq.); or

18 (C) be a consortium of such institutions of  
19 higher education, industry, State agencies, Indian  
20 tribal agencies, or local government agencies located  
21 in the State; and

22 (2) have proven experience and capabilities with  
23 relevant technologies.



1 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
2 authorized to be appropriated to carry out this section  
3 \$25,000,000 for each of fiscal years 2008 through 2010.

4 **SEC. 126. GRANTS FOR INFRASTRUCTURE FOR TRANSPOR-**  
5 **TATION OF BIOMASS TO LOCAL BIOREFIN-**  
6 **ERIES.**

7 (a) IN GENERAL.—The Secretary shall conduct a  
8 program under which the Secretary shall provide grants  
9 to Indian tribal and local governments and other eligible  
10 entities (as determined by the Secretary) (referred to in  
11 this section as “eligible entities”) to promote the develop-  
12 ment of infrastructure to support the separation, produc-  
13 tion, processing, and transportation of biomass to local  
14 biorefineries.

15 (b) PHASES.—The Secretary shall conduct the pro-  
16 gram in the following phases:

17 (1) DEVELOPMENT.—In the first phase of the  
18 program, the Secretary shall make grants to eligible  
19 entities to assist the eligible entities in the develop-  
20 ment of local projects to promote the development of  
21 infrastructure to support the separation, production,  
22 processing, and transportation of biomass to local  
23 biorefineries.

24 (2) IMPLEMENTATION.—In the second phase of  
25 the program, the Secretary shall make competitive

1 grants to eligible entities to implement projects de-  
2 veloped under paragraph (1).

3 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
4 are authorized to be appropriated such sums as are nec-  
5 essary to carry out this section.

6 **SEC. 127. BIOREFINERY INFORMATION CENTER.**

7 (a) IN GENERAL.—The Secretary, in cooperation  
8 with the Secretary of Agriculture, shall establish a bio-  
9 refinery information center to make available to interested  
10 parties information on—

- 11 (1) renewable fuel resources, including informa-  
12 tion on programs and incentives for renewable fuels;
- 13 (2) renewable fuel producers;
- 14 (3) renewable fuel users; and
- 15 (4) potential renewable fuel users.

16 (b) ADMINISTRATION.—In administering the bio-  
17 refinery information center, the Secretary shall—

- 18 (1) continually update information provided by  
19 the center;
- 20 (2) make information available to interested  
21 parties on the process for establishing a biorefinery;  
22 and
- 23 (3) make information and assistance provided  
24 by the center available through a toll-free telephone  
25 number and website.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
 2 are authorized to be appropriated such sums as are nec-  
 3 essary to carry out this section.

4 **SEC. 128. ALTERNATIVE FUEL DATABASE AND MATERIALS.**

5 The Secretary and the Director of the National Insti-  
 6 tute of Standards and Technology shall jointly establish  
 7 and make available to the public—

8 (1) a database that describes the physical prop-  
 9 erties of different types of alternative fuel; and

10 (2) standard reference materials for different  
 11 types of alternative fuel.

12 **SEC. 129. FUEL TANK CAP LABELING REQUIREMENT.**

13 Section 406(a) of the Energy Policy Act of 1992 (42  
 14 U.S.C. 13232(a)) is amended—

15 (1) by striking “The Federal Trade Commis-  
 16 sion” and inserting the following:

17 “(1) IN GENERAL.—The Federal Trade Com-  
 18 mission”; and

19 (2) by adding at the end the following:

20 “(2) FUEL TANK CAP LABELING REQUIRE-  
 21 MENT.—Beginning with model year 2010, the fuel  
 22 tank cap of each alternative fueled vehicle manufac-  
 23 tured for sale in the United States shall be clearly  
 24 labeled to inform consumers that such vehicle can  
 25 operate on alternative fuel.”.

1   **SEC. 130. BIODIESEL.**

2           (a) IN GENERAL.—Not later than 180 days after the  
3   date of enactment of this Act, the Secretary shall submit  
4   to Congress a report on any research and development  
5   challenges inherent in increasing to 5 percent the propor-  
6   tion of diesel fuel sold in the United States that is bio-  
7   diesel (as defined in section 757 of the Energy Policy Act  
8   of 2005 (42 U.S.C. 16105)).

9           (b) REGULATIONS.—The President shall promulgate  
10   regulations providing for the uniform labeling of biodiesel  
11   blends that are certified to meet applicable standards pub-  
12   lished by the American Society for Testing and Materials.

13          (c) NATIONAL BIODIESEL FUEL QUALITY STAND-  
14   ARD.—

15           (1) QUALITY REGULATIONS.—Within 180 days  
16   following the date of enactment of this Act, the  
17   President shall promulgate regulations to ensure  
18   that only biodiesel that is tested and certified to  
19   comply with the American Society for Testing and  
20   Materials (ASTM) 6751 standard is introduced into  
21   interstate commerce.

22           (2) ENFORCEMENT.—The President shall en-  
23   sure that all biodiesel entering interstate commerce  
24   meets the requirements of paragraph (1).

25           (3) FUNDING.—There are authorized to be ap-  
26   propriated to the President to carry out this section:

1 (A) \$3,000,000 for fiscal year 2008.

2 (B) \$3,000,000 for fiscal year 2009.

3 (C) \$3,000,000 for fiscal year 2010.

4 **Subtitle C—Studies**

5 **SEC. 141. STUDY OF ADVANCED BIOFUELS TECHNOLOGIES.**

6 (a) IN GENERAL.—Not later than October 1, 2012,  
7 the Secretary shall offer to enter into a contract with the  
8 National Academy of Sciences under which the Academy  
9 shall conduct a study of technologies relating to the pro-  
10 duction, transportation, and distribution of advanced  
11 biofuels.

12 (b) SCOPE.—In conducting the study, the Academy  
13 shall—

14 (1) include an assessment of the maturity of  
15 advanced biofuels technologies;

16 (2) consider whether the rate of development of  
17 those technologies will be sufficient to meet the ad-  
18 vanced biofuel standards required under section 111;

19 (3) consider the effectiveness of the research  
20 and development programs and activities of the De-  
21 partment of Energy relating to advanced biofuel  
22 technologies; and

23 (4) make policy recommendations to accelerate  
24 the development of those technologies to commercial  
25 viability, as appropriate.

1 (c) REPORT.—Not later than November 30, 2014,  
2 the Secretary shall submit to the Committee on Energy  
3 and Natural Resources of the Senate and the Committee  
4 on Energy and Commerce of the House of Representatives  
5 a report describing the results of the study conducted  
6 under this section.

7 **SEC. 142. STUDY OF INCREASED CONSUMPTION OF ETH-**  
8 **ANOL-BLENDED GASOLINE WITH HIGHER**  
9 **LEVELS OF ETHANOL.**

10 (a) IN GENERAL.—The Secretary, in cooperation  
11 with the Secretary of Agriculture, the Administrator of the  
12 Environmental Protection Agency, and the Secretary of  
13 Transportation, and after providing notice and an oppor-  
14 tunity for public comment, shall conduct a study of the  
15 feasibility of increasing consumption in the United States  
16 of ethanol-blended gasoline with levels of ethanol that are  
17 not less than 10 percent and not more than 40 percent.

18 (b) STUDY.—The study under subsection (a) shall in-  
19 clude—

20 (1) a review of production and infrastructure  
21 constraints on increasing consumption of ethanol;

22 (2) an evaluation of the economic, market, and  
23 energy-related impacts of State and regional dif-  
24 ferences in ethanol blends;

1           (3) an evaluation of the economic, market, and  
2           energy-related impacts on gasoline retailers and con-  
3           sumers of separate and distinctly labeled fuel stor-  
4           age facilities and dispensers;

5           (4) an evaluation of the environmental impacts  
6           of mid-level ethanol blends on evaporative and ex-  
7           haust emissions from on-road, off-road, and marine  
8           engines, recreational boats, vehicles, and equipment;

9           (5) an evaluation of the impacts of mid-level  
10          ethanol blends on the operation, durability, and per-  
11          formance of on-road, off-road, and marine engines,  
12          recreational boats, vehicles, and equipment; and

13          (6) an evaluation of the safety impacts of mid-  
14          level ethanol blends on consumers that own and op-  
15          erate off-road and marine engines, recreational  
16          boats, vehicles, or equipment.

17          (c) REPORT.—Not later than 1 year after the date  
18          of enactment of this Act, the Secretary shall submit to  
19          Congress a report describing the results of the study con-  
20          ducted under this section.

21   **SEC. 143. PIPELINE FEASIBILITY STUDY.**

22          (a) IN GENERAL.—The Secretary, in coordination  
23          with the Secretary of Agriculture and the Secretary of  
24          Transportation, shall conduct a study of the feasibility of  
25          the construction of dedicated ethanol pipelines.

1 (b) FACTORS.—In conducting the study, the Sec-  
2 retary shall consider—

3 (1) the quantity of ethanol production that  
4 would make dedicated pipelines economically viable;

5 (2) existing or potential barriers to dedicated  
6 ethanol pipelines, including technical, siting, financ-  
7 ing, and regulatory barriers;

8 (3) market risk (including throughput risk) and  
9 means of mitigating the risk;

10 (4) regulatory, financing, and siting options  
11 that would mitigate risk in those areas and help en-  
12 sure the construction of 1 or more dedicated ethanol  
13 pipelines;

14 (5) financial incentives that may be necessary  
15 for the construction of dedicated ethanol pipelines,  
16 including the return on equity that sponsors of the  
17 initial dedicated ethanol pipelines will require to in-  
18 vest in the pipelines;

19 (6) technical factors that may compromise the  
20 safe transportation of ethanol in pipelines, identi-  
21 fying remedial and preventative measures to ensure  
22 pipeline integrity; and

23 (7) such other factors as the Secretary con-  
24 siders appropriate.



1 (c) REPORT.—Not later than 15 months after the  
2 date of enactment of this Act, the Secretary shall submit  
3 to Congress a report describing the results of the study  
4 conducted under this section.

5 **SEC. 144. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED**  
6 **VEHICLES TO USE E-85 FUEL.**

7 (a) IN GENERAL.—The Secretary shall conduct a  
8 study of methods of increasing the fuel efficiency of flexi-  
9 ble fueled vehicles by optimizing flexible fueled vehicles to  
10 operate using E-85 fuel.

11 (b) REPORT.—Not later than 180 days after the date  
12 of enactment of this Act, the Secretary shall submit to  
13 the Committee on Energy and Natural Resources of the  
14 Senate and the Committee on Natural Resources of the  
15 House of Representatives a report that describes the re-  
16 sults of the study, including any recommendations of the  
17 Secretary.

18 **SEC. 145. STUDY OF CREDITS FOR USE OF RENEWABLE**  
19 **ELECTRICITY IN ELECTRIC VEHICLES.**

20 (a) DEFINITION OF ELECTRIC VEHICLE.—In this  
21 section, the term “electric vehicle” means an electric  
22 motor vehicle (as defined in section 601 of the Energy Pol-  
23 icy Act of 1992 (42 U.S.C. 13271)) for which the re-  
24 chargeable storage battery—

1           (1) receives a charge directly from a source of  
2       electric current that is external to the vehicle; and

3           (2) provides a minimum of 80 percent of the  
4       motive power of the vehicle.

5       (b) STUDY.—The Secretary shall conduct a study on  
6       the feasibility of issuing credits under the program estab-  
7       lished under section 111(d) to electric vehicles powered by  
8       electricity produced from renewable energy sources.

9       (c) REPORT.—Not later than 18 months after the  
10      date of enactment of this Act, the Secretary shall submit  
11      to the Committee on Energy and Natural Resources of  
12      the Senate and the Committee on Energy and Commerce  
13      of the House of Representatives a report that describes  
14      the results of the study, including a description of—

15           (1) existing programs and studies on the use of  
16      renewable electricity as a means of powering electric  
17      vehicles; and

18           (2) alternatives for—

19                (A) designing a pilot program to determine  
20      the feasibility of using renewable electricity to  
21      power electric vehicles as an adjunct to a re-  
22      newable fuels mandate;

23                (B) allowing the use, under the pilot pro-  
24      gram designed under subparagraph (A), of elec-

1           tricity generated from nuclear energy as an ad-  
2           ditional source of supply;

3           (C) identifying the source of electricity  
4           used to power electric vehicles; and

5           (D) equating specific quantities of elec-  
6           tricity to quantities of renewable fuel under sec-  
7           tion 111(d).

8   **SEC. 146. STUDY OF ENGINE DURABILITY ASSOCIATED**  
9           **WITH THE USE OF BIODIESEL.**

10       (a) IN GENERAL.—Not later than 30 days after the  
11       date of enactment of this Act, the Secretary shall initiate  
12       a study on the effects of the use of biodiesel on engine  
13       durability.

14       (b) COMPONENTS.—The study under this section  
15       shall include—

16           (1) an assessment of whether the use of bio-  
17       diesel in conventional diesel engines lessens engine  
18       durability; and

19           (2) an assessment of the effects referred to in  
20       subsection (a) with respect to biodiesel blends at  
21       varying concentrations, including—

22           (A) B5;

23           (B) B10;

24           (C) B20; and

25           (D) B30.

1 **SEC. 147. STUDY OF INCENTIVES FOR RENEWABLE FUELS.**

2 (a) STUDY.—The President shall conduct a study of  
3 the renewable fuels industry and markets in the United  
4 States, including—

5 (1) the costs to produce conventional and ad-  
6 vanced biofuels;

7 (2) the factors affecting the future market  
8 prices for those biofuels, including world oil prices;  
9 and

10 (3) the financial incentives necessary to en-  
11 hance, to the maximum extent practicable, the  
12 biofuels industry of the United States to reduce the  
13 dependence of the United States on foreign oil dur-  
14 ing calendar years 2011 through 2030.

15 (b) GOALS.—The study shall include an analysis of  
16 the options for financial incentives and the advantage and  
17 disadvantages of each option.

18 (c) REPORT.—Not later than 1 year after the date  
19 of enactment of this Act, the President shall submit to  
20 Congress a report that describes the results of the study.

21 **SEC. 148. STUDY OF STREAMLINED LIFECYCLE ANALYSIS**  
22 **TOOLS FOR THE EVALUATION OF RENEW-**  
23 **ABLE CARBON CONTENT OF BIOFUELS.**

24 (a) IN GENERAL.—The Secretary, in consultation  
25 with the Secretary of Agriculture and the Administrator

1 of the Environmental Protection Agency, shall conduct a  
2 study of—

3 (1) published methods for evaluating the  
4 lifecycle fossil and renewable carbon content of fuels,  
5 including conventional and advanced biofuels; and

6 (2) methods for performing simplified, stream-  
7 lined lifecycle analyses of the fossil and renewable  
8 carbon content of biofuels.

9 (b) REPORT.—Not later than 1 year after the date  
10 of enactment of this Act, the Secretary shall submit to  
11 the Committee on Energy and Natural Resources of the  
12 Senate and the Committee on Energy and Commerce of  
13 the House of Representatives a report that describes the  
14 results of the study under subsection (a), including rec-  
15 ommendations for a method for performing a simplified,  
16 streamlined lifecycle analysis of the fossil and renewable  
17 carbon content of biofuels that includes—

18 (1) carbon inputs to feedstock production; and

19 (2) carbon inputs to the biofuel production  
20 process, including the carbon associated with elec-  
21 trical and thermal energy inputs.

22 **SEC. 149. STUDY OF THE ADEQUACY OF RAILROAD TRANS-**  
23 **PORTATION OF DOMESTICALLY-PRODUCED**  
24 **RENEWABLE FUEL.**

25 (a) STUDY.—

1           (1) IN GENERAL.—The Secretary, in consulta-  
2           tion with the Secretary of Transportation, shall con-  
3           duct a study of the adequacy of railroad transpor-  
4           tation of domestically-produced renewable fuel.

5           (2) COMPONENTS.—In conducting the study  
6           under paragraph (1), the Secretary shall consider—

7                   (A) the adequacy of, and appropriate loca-  
8                   tion for, tracks that have sufficient capacity,  
9                   and are in the appropriate condition, to move  
10                  the necessary quantities of domestically-pro-  
11                  duced renewable fuel within the timeframes re-  
12                  quired by section 111;

13                  (B) the adequacy of the supply of railroad  
14                  tank cars, locomotives, and rail crews to move  
15                  the necessary quantities of domestically-pro-  
16                  duced renewable fuel in a timely fashion;

17                  (C)(i) the projected costs of moving the do-  
18                  mestically-produced renewable fuel using rail-  
19                  road transportation; and

20                  (ii) the impact of the projected costs on  
21                  the marketability of the domestically-produced  
22                  renewable fuel;

23                  (D) whether there is adequate railroad  
24                  competition to ensure—

1 (i) a fair price for the railroad trans-  
2 portation of domestically-produced renew-  
3 able fuel; and

4 (ii) acceptable levels of service for rail-  
5 road transportation of domestically-pro-  
6 duced renewable fuel;

7 (E) any rail infrastructure capital costs  
8 that the railroads indicate should be paid by the  
9 producers or distributors of domestically-pro-  
10 duced renewable fuel;

11 (F) whether Federal agencies have ade-  
12 quate legal authority to ensure a fair and rea-  
13 sonable transportation price and acceptable lev-  
14 els of service in cases in which the domestically-  
15 produced renewable fuel source does not have  
16 access to competitive rail service;

17 (G) whether Federal agencies have ade-  
18 quate legal authority to address railroad service  
19 problems that may be resulting in inadequate  
20 supplies of domestically-produced renewable fuel  
21 in any area of the United States; and

22 (H) any recommendations for any addi-  
23 tional legal authorities for Federal agencies to  
24 ensure the reliable railroad transportation of

1           adequate supplies of domestically-produced re-  
2           newable fuel at reasonable prices.

3           (b) REPORT.—Not later than 180 days after the date  
4 of enactment of this Act, the Secretary shall submit to  
5 the Committee on Energy and Natural Resources of the  
6 Senate and the Committee on Energy and Commerce of  
7 the House of Representatives a report that describes the  
8 results of the study conducted under subsection (a).

9   **SEC. 150. STUDY OF EFFECTS OF ETHANOL-BLENDED GASO-**  
10                   **LINE ON OFF ROAD VEHICLES.**

11           (a) STUDY.—

12               (1) IN GENERAL.—The Secretary, in consulta-  
13 tion with the Secretary of Transportation and the  
14 Administrator of the Environmental Protection  
15 Agency, shall conduct a study to determine the ef-  
16 fects of ethanol-blended gasoline on off-road vehicles  
17 and recreational boats.

18               (2) EVALUATION.—The study shall include an  
19 evaluation of the operational, safety, durability, and  
20 environmental impacts of ethanol-blended gasoline  
21 on off-road and marine engines, recreational boats,  
22 and related equipment.

23           (b) REPORT.—Not later than 1 year after the date  
24 of enactment of this Act, the Secretary shall submit to  
25 Congress a report describing the results of the study.



1   **TITLE II—ENERGY EFFICIENCY**  
2                   **PROMOTION**

3   **SEC. 201. SHORT TITLE.**

4       This title may be cited as the “Energy Efficiency  
5   Promotion Act of 2007”.

6   **Subtitle A—Promoting Advanced**  
7                   **Lighting Technologies**

8   **SEC. 211. ACCELERATED PROCUREMENT OF ENERGY EFFI-**  
9                   **CIENT LIGHTING.**

10       Section 553 of the National Energy Conservation  
11   Policy Act (42 U.S.C. 8259b) is amended by adding the  
12   following:

13       “(f) ACCELERATED PROCUREMENT OF ENERGY EF-  
14   FICIENT LIGHTING.—

15           “(1) IN GENERAL.—Not later than October 1,  
16       2013, in accordance with guidelines issued by the  
17       Secretary, all general purpose lighting in Federal  
18       buildings shall be Energy Star products or products  
19       designated under the Federal Energy Management  
20       Program.

21       “(2) GUIDELINES.—

22           “(A) IN GENERAL.—Not later than 1 year  
23       after the date of enactment of this subsection,  
24       the Secretary shall issue guidelines to carry out  
25       this subsection.

1           “(B) REPLACEMENT COSTS.—The guide-  
 2           lines shall take into consideration the costs of  
 3           replacing all general service lighting and the re-  
 4           duced cost of operation and maintenance ex-  
 5           pected to result from such replacement.”.

6 **SEC. 212. INCANDESCENT REFLECTOR LAMP EFFICIENCY**  
 7 **STANDARDS.**

8           (a) DEFINITIONS.—Section 321 of the Energy Policy  
 9           and Conservation Act (42 U.S.C. 6291) is amended—

10           (1) in paragraph (30)(C)(ii)—

11                   (A) in the matter preceding subclause  
 12                   (I)—

13                           (i) by striking “or similar bulb shapes  
 14                           (excluding ER or BR)” and inserting “ER,  
 15                           BR, BPAR, or similar bulb shapes”; and

16                           (ii) by striking “2.75” and inserting  
 17                           “2.25”; and

18                   (B) by striking “is either—” and all that  
 19           follows through subclause (II) and inserting  
 20           “has a rated wattage that is 40 watts or high-  
 21           er”; and

22           (2) by adding at the end the following:

23           “(52) BPAR INCANDESCENT REFLECTOR  
 24           LAMP.—The term ‘BPAR incandescent reflector

1 lamp’ means a reflector lamp as shown in figure  
2 C78.21–278 on page 32 of ANSI C78.21–2003.

3 “(53) BR INCANDESCENT REFLECTOR LAMP;  
4 BR30; BR40.—

5 “(A) BR INCANDESCENT REFLECTOR  
6 LAMP.—The term ‘BR incandescent reflector  
7 lamp’ means a reflector lamp that has—

8 “(i) a bulged section below the major  
9 diameter of the bulb and above the approx-  
10 imate baseline of the bulb, as shown in fig-  
11 ure 1 (RB) on page 7 of ANSI C79.1–  
12 1994, incorporated by reference in section  
13 430.22 of title 10, Code of Federal Regula-  
14 tions (as in effect on the date of enactment  
15 of this paragraph); and

16 “(ii) a finished size and shape shown  
17 in ANSI C78.21–1989, including the ref-  
18 erenced reflective characteristics in part 7  
19 of ANSI C78.21–1989, incorporated by  
20 reference in section 430.22 of title 10,  
21 Code of Federal Regulations (as in effect  
22 on the date of enactment of this para-  
23 graph).

1           “(B) BR30.—The term ‘BR30’ means a  
2           BR incandescent reflector lamp with a diameter  
3           of 30/8ths of an inch.

4           “(C) BR40.—The term ‘BR40’ means a  
5           BR incandescent reflector lamp with a diameter  
6           of 40/8ths of an inch.

7           “(54) ER INCANDESCENT REFLECTOR LAMP;  
8           ER30; ER40.—

9           “(A) ER INCANDESCENT REFLECTOR  
10          LAMP.—The term ‘ER incandescent reflector  
11          lamp’ means a reflector lamp that has—

12               “(i) an elliptical section below the  
13               major diameter of the bulb and above the  
14               approximate baseline of the bulb, as shown  
15               in figure 1 (RE) on page 7 of ANSI  
16               C79.1–1994, incorporated by reference in  
17               section 430.22 of title 10, Code of Federal  
18               Regulations (as in effect on the date of en-  
19               actment of this paragraph); and

20               “(ii) a finished size and shape shown  
21               in ANSI C78.21–1989, incorporated by  
22               reference in section 430.22 of title 10,  
23               Code of Federal Regulations (as in effect  
24               on the date of enactment of this para-  
25               graph).

1                   “(B) ER30.—The term ‘ER30’ means an  
 2                   ER incandescent reflector lamp with a diameter  
 3                   of 30/8ths of an inch.

4                   “(C) ER40.—The term ‘ER40’ means an  
 5                   ER incandescent reflector lamp with a diameter  
 6                   of 40/8ths of an inch.

7                   “(55)     R20     INCANDESCENT     REFLECTOR  
 8                   LAMP.—The term ‘R20 incandescent reflector lamp’  
 9                   means a reflector lamp that has a face diameter of  
 10                  approximately 2.5 inches, as shown in figure 1(R)  
 11                  on page 7 of ANSI C79.1–1994.”.

12                  (b) STANDARDS FOR FLUORESCENT LAMPS AND IN-  
 13                  CANDESCENT REFLECTOR LAMPS.—Section 325(i) of the  
 14                  Energy Policy and Conservation Act (42 U.S.C. 6925(i))  
 15                  is amended by striking paragraph (1) and inserting the  
 16                  following:

17                  “(1) STANDARDS.—

18                         “(A) DEFINITION OF EFFECTIVE DATE.—

19                         In this paragraph (other than subparagraph  
 20                         (D)), the term ‘effective date’ means, with re-  
 21                         spect to each type of lamp specified in a table  
 22                         contained in subparagraph (B), the last day of  
 23                         the period of months corresponding to that type  
 24                         of lamp (as specified in the table) that follows  
 25                         October 24, 1992.

“(B) MINIMUM STANDARDS.—Each of the following general service fluorescent lamps and incandescent reflector lamps manufactured after the effective date specified in the tables contained in this paragraph shall meet or exceed the following lamp efficacy and CRI standards:

“FLUORESCENT LAMPS

| Lamp Type                  | Nominal Lamp Wattage | Minimum CRI | Minimum Average Lamp Efficacy (LPW) | Effective Date (Period of Months) |
|----------------------------|----------------------|-------------|-------------------------------------|-----------------------------------|
| 4-foot medium bi-pin ..... | >35 W                | 69          | 75.0                                | 36                                |
|                            | ≤35 W                | 45          | 75.0                                | 36                                |
| 2-foot U-shaped .....      | >35 W                | 69          | 68.0                                | 36                                |
|                            | ≤35 W                | 45          | 64.0                                | 36                                |
| 8-foot slimline .....      | 65 W                 | 69          | 80.0                                | 18                                |
|                            | ≤65 W                | 45          | 80.0                                | 18                                |
| 8-foot high output .....   | >100 W               | 69          | 80.0                                | 18                                |
|                            | ≤100 W               | 45          | 80.0                                | 18                                |

“INCANDESCENT REFLECTOR LAMPS

| Nominal Lamp Wattage | Minimum Average Lamp Efficacy (LPW) | Effective Date (Period of Months) |
|----------------------|-------------------------------------|-----------------------------------|
| 40–50 .....          | 10.5                                | 36                                |
| 51–66 .....          | 11.0                                | 36                                |
| 67–85 .....          | 12.5                                | 36                                |
| 86–115 .....         | 14.0                                | 36                                |
| 116–155 .....        | 14.5                                | 36                                |
| 156–205 .....        | 15.0                                | 36                                |

“(C) EXEMPTIONS.—The standards specified in subparagraph (B) shall not apply to the following types of incandescent reflector lamps:

“(i) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps.

1 “(ii) Lamps rated at 65 watts that  
2 are BR30, BR40, or ER40 lamps.

3 “(iii) R20 incandescent reflector  
4 lamps rated 45 watts or less.

5 “(D) EFFECTIVE DATES.—

6 “(i) ER, BR, AND BPAR LAMPS.—The  
7 standards specified in subparagraph (B)  
8 shall apply with respect to ER incandes-  
9 cent reflector lamps, BR incandescent re-  
10 flector lamps, BPAR incandescent reflector  
11 lamps, and similar bulb shapes on and  
12 after January 1, 2008.

13 “(ii) LAMPS BETWEEN 2.25–2.75  
14 INCHES IN DIAMETER.—The standards  
15 specified in subparagraph (B) shall apply  
16 with respect to incandescent reflector  
17 lamps with a diameter of more than 2.25  
18 inches, but not more than 2.75 inches, on  
19 and after January 1, 2008.”.

20 **SEC. 213. BRIGHT TOMORROW LIGHTING PRIZES.**

21 (a) ESTABLISHMENT.—Not later than 1 year after  
22 the date of enactment of this Act, as part of the program  
23 carried out under section 1008 of the Energy Policy Act  
24 of 2005 (42 U.S.C. 16396), the Secretary shall establish

1 and award Bright Tomorrow Lighting Prizes for solid  
2 state lighting in accordance with this section.

3 (b) PRIZE SPECIFICATIONS.—

4 (1) 60-WATT INCANDESCENT REPLACEMENT  
5 LAMP PRIZE.—The Secretary shall award a 60-Watt  
6 Incandescent Replacement Lamp Prize to an entrant  
7 that produces a solid-state light package simulta-  
8 neously capable of—

9 (A) producing a luminous flux greater than  
10 900 lumens;

11 (B) consuming less than or equal to 10  
12 watts;

13 (C) having an efficiency greater than 90  
14 lumens per watt;

15 (D) having a color rendering index greater  
16 than 90;

17 (E) having a correlated color temperature  
18 of not less than 2,750, and not more than  
19 3,000, degrees Kelvin;

20 (F) having 70 percent of the lumen value  
21 under subparagraph (A) exceeding 25,000  
22 hours under typical conditions expected in resi-  
23 dential use;



1 (G) having a light distribution pattern  
2 similar to a soft 60-watt incandescent A19  
3 bulb;

4 (H) having a size and shape that fits with-  
5 in the maximum dimensions of an A19 bulb in  
6 accordance with American National Standards  
7 Institute standard C78.20–2003, figure  
8 C78.20–211;

9 (I) using a single contact medium screw  
10 socket; and

11 (J) mass production for a competitive sales  
12 commercial market satisfied by the submission  
13 of 10,000 such units equal to or exceeding the  
14 criteria described in subparagraphs (A) through  
15 (I).

16 (2) PAR TYPE 38 HALOGEN REPLACEMENT  
17 LAMP PRIZE.—The Secretary shall award a  
18 Parabolic Aluminized Reflector Type 38 Halogen  
19 Replacement Lamp Prize (referred to in this section  
20 as the “PAR Type 38 Halogen Replacement Lamp  
21 Prize”) to an entrant that produces a solid-state-  
22 light package simultaneously capable of—

23 (A) producing a luminous flux greater than  
24 or equal to 1,350 lumens;

1 (B) consuming less than or equal to 11  
2 watts;

3 (C) having an efficiency greater than 123  
4 lumens per watt;

5 (D) having a color rendering index greater  
6 than or equal to 90;

7 (E) having a correlated color coordinate  
8 temperature of not less than 2,750, and not  
9 more than 3,000, degrees Kelvin;

10 (F) having 70 percent of the lumen value  
11 under subparagraph (A) exceeding 25,000  
12 hours under typical conditions expected in resi-  
13 dential use;

14 (G) having a light distribution pattern  
15 similar to a PAR 38 halogen lamp;

16 (H) having a size and shape that fits with-  
17 in the maximum dimensions of a PAR 38 halo-  
18 gen lamp in accordance with American National  
19 Standards Institute standard C78-21-2003,  
20 figure C78.21-238;

21 (I) using a single contact medium screw  
22 socket; and

23 (J) mass production for a competitive sales  
24 commercial market satisfied by the submission  
25 of 10,000 such units equal to or exceeding the

1 criteria described in subparagraphs (A) through  
2 (I).

3 (3) TWENTY-FIRST CENTURY LAMP PRIZE.—

4 The Secretary shall award a Twenty-First Century  
5 Lamp Prize to an entrant that produces a solid-  
6 state-light-light capable of—

7 (A) producing a light output greater than  
8 1,200 lumens;

9 (B) having an efficiency greater than 150  
10 lumens per watt;

11 (C) having a color rendering index greater  
12 than 90;

13 (D) having a color coordinate temperature  
14 between 2,800 and 3,000 degrees Kelvin; and

15 (E) having a lifetime exceeding 25,000  
16 hours.

17 (c) PRIVATE FUNDS.—The Secretary may accept and  
18 use funding from private sources as part of the prizes  
19 awarded under this section.

20 (d) TECHNICAL REVIEW.—The Secretary shall estab-  
21 lish a technical review committee composed of non-Federal  
22 officers to review entrant data submitted under this sec-  
23 tion to determine whether the data meets the prize speci-  
24 fications described in subsection (b).

1 (e) THIRD PARTY ADMINISTRATION.—The Secretary  
2 may competitively select a third party to administer  
3 awards under this section.

4 (f) AWARD AMOUNTS.—Subject to the availability of  
5 funds to carry out this section, the amount of—

6 (1) the 60-Watt Incandescent Replacement  
7 Lamp Prize described in subsection (b)(1) shall be  
8 \$10,000,000;

9 (2) the PAR Type 38 Halogen Replacement  
10 Lamp Prize described in subsection (b)(2) shall be  
11 \$5,000,000; and

12 (3) the Twenty-First Century Lamp Prize de-  
13 scribed in subsection (b)(3) shall be \$5,000,000.

14 (g) FEDERAL PROCUREMENT OF SOLID-STATE-  
15 LIGHTS.—

16 (1) 60-WATT INCANDESCENT REPLACEMENT.—  
17 Subject to paragraph (3), as soon as practicable  
18 after the successful award of the 60-Watt Incandes-  
19 cent Replacement Lamp Prize under subsection  
20 (b)(1), the Secretary (in consultation with the Ad-  
21 ministrator of General Services) shall develop gov-  
22 ernmentwide Federal purchase guidelines with a goal  
23 of replacing the use of 60-watt incandescent lamps  
24 in Federal Government buildings with a solid-state-  
25 light package described in subsection (b)(1) by not

1 later than the date that is 5 years after the date the  
2 award is made.

3 (2) PAR 38 HALOGEN REPLACEMENT LAMP RE-  
4 PLACEMENT.—Subject to paragraph (3), as soon as  
5 practicable after the successful award of the PAR  
6 Type 38 Halogen Replacement Lamp Prize under  
7 subsection (b)(2), the Secretary (in consultation with  
8 the Administrator of General Services) shall develop  
9 governmentwide Federal purchase guidelines with  
10 the goal of replacing the use of PAR 38 halogen  
11 lamps in Federal Government buildings with a solid-  
12 state-light package described in subsection (b)(2) by  
13 not later than the date that is 5 years after the date  
14 the award is made.

15 (3) WAIVERS.—

16 (A) IN GENERAL.—The Secretary or the  
17 Administrator of General Services may waive  
18 the application of paragraph (1) or (2) if the  
19 Secretary or Administrator determines that the  
20 return on investment from the purchase of a  
21 solid-state-light package described in paragraph  
22 (1) or (2) of subsection (b), respectively, is cost  
23 prohibitive.

24 (B) REPORT OF WAIVER.—If the Secretary  
25 or Administrator waives the application of para-

graph (1) or (2), the Secretary or Administrator, respectively, shall submit to Congress an annual report that describes the waiver and provides a detailed justification for the waiver.

(h) BRIGHT LIGHT TOMORROW AWARD FUND.—

(1) ESTABLISHMENT.—There is established in the United States Treasury a Bright Light Tomorrow permanent fund without fiscal year limitation to award prizes under paragraphs (1), (2), and (3) of subsection (b).

(2) SOURCES OF FUNDING.—The fund established under paragraph (1) shall accept—

(A) fiscal year appropriations; and

(B) private contributions authorized under subsection (c).

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

**SEC. 214. RENEWABLE ENERGY CONSTRUCTION GRANTS.**

(a) DEFINITIONS.—In this section:

(1) ALASKA SMALL HYDROELECTRIC POWER.—

The term “Alaska small hydroelectric power” means power that—

(A) is generated—

(i) in the State of Alaska;

1 (ii) without the use of a dam or im-  
 2 poundment of water; and

3 (iii) through the use of—

4 (I) a lake tap (but not a perched  
 5 alpine lake); or

6 (II) a run-of-river screened at the  
 7 point of diversion; and

8 (B) has a nameplate capacity rating of a  
 9 wattage that is not more than 15 megawatts.

10 (2) ELIGIBLE APPLICANT.—The term “eligible  
 11 applicant” means any—

12 (A) governmental entity;

13 (B) private utility;

14 (C) public utility;

15 (D) municipal utility;

16 (E) cooperative utility;

17 (F) Indian tribes; and

18 (G) Regional Corporation (as defined in  
 19 section 3 of the Alaska Native Claims Settle-  
 20 ment Act (43 U.S.C. 1602)).

21 (3) OCEAN ENERGY.—

22 (A) INCLUSIONS.—The term “ocean en-  
 23 ergy” includes current, wave, and tidal energy.

24 (B) EXCLUSION.—The term “ocean en-  
 25 ergy” excludes thermal energy.

1           (4) RENEWABLE ENERGY PROJECT.—The term  
2           “renewable energy project” means a project—

3                   (A) for the commercial generation of elec-  
4           tricity; and

5                   (B) that generates electricity from—

6                           (i) solar, wind, or geothermal energy  
7                           or ocean energy;

8                           (ii) biomass (as defined in section  
9                           203(b) of the Energy Policy Act of 2005  
10                           (42 U.S.C. 15852(b)));

11                           (iii) landfill gas; or

12                           (iv) Alaska small hydroelectric power.

13       (b)     RENEWABLE     ENERGY     CONSTRUCTION  
14     GRANTS.—

15           (1) IN GENERAL.—The Secretary shall use  
16     amounts appropriated under this section to make  
17     grants for use in carrying out renewable energy  
18     projects.

19           (2) CRITERIA.—Not later than 180 days after  
20     the date of enactment of this Act, the Secretary  
21     shall set forth criteria for use in awarding grants  
22     under this section.

23           (3) APPLICATION.—To receive a grant from the  
24     Secretary under paragraph (1), an eligible applicant  
25     shall submit to the Secretary an application at such



1 time, in such manner, and containing such informa-  
2 tion as the Secretary may require, including a writ-  
3 ten assurance that—

4 (A) all laborers and mechanics employed  
5 by contractors or subcontractors during con-  
6 struction, alteration, or repair that is financed,  
7 in whole or in part, by a grant under this sec-  
8 tion shall be paid wages at rates not less than  
9 those prevailing on similar construction in the  
10 locality, as determined by the Secretary of  
11 Labor in accordance with sections 3141–3144,  
12 3146, and 3147 of title 40, United States Code;  
13 and

14 (B) the Secretary of Labor shall, with re-  
15 spect to the labor standards described in this  
16 paragraph, have the authority and functions set  
17 forth in Reorganization Plan Numbered 14 of  
18 1950 (5 U.S.C. App.) and section 3145 of title  
19 40, United States Code.

20 (4) NON-FEDERAL SHARE.—Each eligible appli-  
21 cant that receives a grant under this subsection shall  
22 contribute to the total cost of the renewable energy  
23 project constructed by the eligible applicant an  
24 amount not less than 50 percent of the total cost of  
25 the project.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
 2 are authorized to be appropriated to the Fund such sums  
 3 as are necessary to carry out this section.

4 **Subtitle B—Expediting New**  
 5 **Energy Efficiency Standards**

6 **SEC. 221. DEFINITION OF ENERGY CONSERVATION STAND-**  
 7 **ARD.**

8 Section 321 of the Energy Policy and Conservation  
 9 Act (42 U.S.C. 6291) is amended by striking paragraph  
 10 (6) and inserting the following:

11 “(6) ENERGY CONSERVATION STANDARD.—

12 “(A) IN GENERAL.—The term ‘energy con-  
 13 servation standard’ means 1 or more perform-  
 14 ance standards that prescribe a minimum level  
 15 of energy efficiency or a maximum quantity of  
 16 energy use and, in the case of a showerhead,  
 17 faucet, water closet, urinal, clothes washer, and  
 18 dishwasher, water use, for a covered product,  
 19 determined in accordance with test procedures  
 20 prescribed under section 323.

21 “(B) INCLUSIONS.—The term ‘energy con-  
 22 servation standard’ includes—

23 “(i) 1 or more design requirements, as  
 24 part of a consensus agreement under sec-  
 25 tion 325(hh); and

1 “(ii) any other requirements that the  
 2 Secretary may prescribe under subsections  
 3 (o) and (r) of section 325.

4 “(C) EXCLUSION.—The term ‘energy con-  
 5 servation standard’ does not include a perform-  
 6 ance standard for a component of a finished  
 7 covered product.”.

8 **SEC. 222. REGIONAL EFFICIENCY STANDARDS FOR HEAT-**  
 9 **ING AND COOLING PRODUCTS.**

10 (a) IN GENERAL.—Section 327 of the Energy Policy  
 11 and Conservation Act (42 U.S.C. 6297) is amended—

12 (1) by redesignating subsections (e), (f), and  
 13 (g) as subsections (f), (g), and (h), respectively; and

14 (2) by inserting after subsection (d) the fol-  
 15 lowing:

16 “(e) REGIONAL EFFICIENCY STANDARDS FOR HEAT-  
 17 ING AND COOLING PRODUCTS.—

18 “(1) IN GENERAL.—

19 “(A) DETERMINATION.—The Secretary  
 20 may determine, after notice and comment, that  
 21 more stringent Federal energy conservation  
 22 standards are appropriate for furnaces, boilers,  
 23 or central air conditioning equipment than ap-  
 24 plicable Federal energy conservation standards.

1           “(B) FINDING.—The Secretary may deter-  
2           mine that more stringent standards are appro-  
3           priate for up to 2 different regions only after  
4           finding that the regional standards—

5                   “(i) would contribute to energy sav-  
6                   ings that are substantially greater than  
7                   that of a single national energy standard;  
8                   and

9                   “(ii) are economically justified.

10           “(C) REGIONS.—On making a determina-  
11           tion described in subparagraph (B), the Sec-  
12           retary shall establish the regions so that the  
13           more stringent standards would achieve the  
14           maximum level of energy savings that is techno-  
15           logically feasible and economically justified.

16           “(D) FACTORS.—In determining the ap-  
17           propriateness of 1 or more regional standards  
18           for furnaces, boilers, and central and commer-  
19           cial air conditioning equipment, the Secretary  
20           shall consider all of the factors described in  
21           paragraphs (1) through (4) of section 325(o).

22           “(2) STATE PETITION.—After a determination  
23           made by the Secretary under paragraph (1), a State  
24           may petition the Secretary requesting a rule that a  
25           State regulation that establishes a standard for fur-

1 naces, boilers, or central air conditioners become ef-  
2 fective at a level determined by the Secretary to be  
3 appropriate for the region that includes the State.

4 “(3) RULE.—Subject to paragraphs (4) through  
5 (7), the Secretary may issue the rule during the pe-  
6 riod described in paragraph (4) and after consider-  
7 ation of the petition and the comments of interested  
8 persons.

9 “(4) PROCEDURE.—

10 “(A) NOTICE.—The Secretary shall pro-  
11 vide notice of any petition filed under para-  
12 graph (2) and afford interested persons a rea-  
13 sonable opportunity to make written comments,  
14 including rebuttal comments, on the petition.

15 “(B) DECISION.—Except as provided in  
16 subparagraph (C), during the 180-day period  
17 beginning on the date on which the petition is  
18 filed, the Secretary shall issue the requested  
19 rule or deny the petition.

20 “(C) EXTENSION.—The Secretary may  
21 publish in the Federal Register a notice—

22 “(i) extending the period to a speci-  
23 fied date, but not longer than 1 year after  
24 the date on which the petition is filed; and

1 “(ii) describing the reasons for the  
2 delay.

3 “(D) DENIALS.—If the Secretary denies a  
4 petition under this subsection, the Secretary  
5 shall publish in the Federal Register notice of,  
6 and the reasons for, the denial.

7 “(5) FINDING OF SIGNIFICANT BURDEN ON  
8 MANUFACTURING, MARKETING, DISTRIBUTION, SALE,  
9 OR SERVICING OF COVERED PRODUCT ON NATIONAL  
10 BASIS.—

11 “(A) IN GENERAL.—The Secretary may  
12 not issue a rule under this subsection if the  
13 Secretary finds (and publishes the finding) that  
14 interested persons have established, by a pre-  
15 ponderance of the evidence, that the State regu-  
16 lation will significantly burden manufacturing,  
17 marketing, distribution, sale, or servicing of a  
18 covered product on a national basis.

19 “(B) FACTORS.—In determining whether  
20 to make a finding described in subparagraph  
21 (A), the Secretary shall evaluate all relevant  
22 factors, including—

23 “(i) the extent to which the State reg-  
24 ulation will increase manufacturing or dis-

1           tribution costs of manufacturers, distribu-  
2           tors, and others;

3           “(ii) the extent to which the State  
4           regulation will disadvantage smaller manu-  
5           facturers, distributors, or dealers or lessen  
6           competition in the sale of the covered prod-  
7           uct in the State; and

8           “(iii) the extent to which the State  
9           regulation would cause a burden to manu-  
10          facturers to redesign and produce the cov-  
11          ered product type (or class), taking into  
12          consideration the extent to which the regu-  
13          lation would result in a reduction—

14               “(I) in the current models, or in  
15               the projected availability of models,  
16               that could be shipped on the effective  
17               date of the regulation to the State  
18               and within the United States; or

19               “(II) in the current or projected  
20               sales volume of the covered product  
21               type (or class) in the State and the  
22               United States.

23           “(6) APPLICATION.—No State regulation shall  
24           become effective under this subsection with respect  
25           to any covered product manufactured before the date

1 specified in the determination made by the Secretary  
2 under paragraph (1).

3 “(7) PETITION TO WITHDRAW FEDERAL RULE  
4 FOLLOWING AMENDMENT OF FEDERAL STAND-  
5 ARD.—

6 “(A) IN GENERAL.—If a State has issued  
7 a rule under paragraph (3) with respect to a  
8 covered product and subsequently a Federal en-  
9 ergy conservation standard concerning the prod-  
10 uct is amended pursuant to section 325, any  
11 person subject to the State regulation may file  
12 a petition with the Secretary requesting the  
13 Secretary to withdraw the rule issued under  
14 paragraph (3) with respect to the product in  
15 the State.

16 “(B) BURDEN OF PROOF.—The Secretary  
17 shall consider the petition in accordance with  
18 paragraph (5) and the burden shall be on the  
19 petitioner to show by a preponderance of the  
20 evidence that the rule received by the State  
21 under paragraph (3) should be withdrawn as a  
22 result of the amendment to the Federal stand-  
23 ard.

24 “(C) WITHDRAWAL.—If the Secretary de-  
25 termines that the petitioner has shown that the



1 rule issued by the Secretary under paragraph  
2 (3) should be withdrawn in accordance with  
3 subparagraph (B), the Secretary shall withdraw  
4 the rule.”.

5 (b) CONFORMING AMENDMENTS.—

6 (1) Section 327 of the Energy Policy and Con-  
7 servation Act (42 U.S.C. 6297) is amended—

8 (A) in subsection (b)—

9 (i) in paragraph (2), by striking “sub-  
10 section (e)” and inserting “subsection (f)”;  
11 and

12 (ii) in paragraph (3)—

13 (I) by striking “subsection  
14 (f)(1)” and inserting “subsection  
15 (g)(1)”; and

16 (II) by striking “subsection  
17 (f)(2)” and inserting “subsection  
18 (g)(2)”; and

19 (B) in subsection (c)(3), by striking “sub-  
20 section (f)(3)” and inserting “subsection  
21 (g)(3)”.

22 (2) Section 345(b)(2) of the Energy Policy and  
23 Conservation Act (42 U.S.C. 6316(b)(2)) is amend-  
24 ed by adding at the end the following:

1                   “(E) RELATIONSHIP TO CERTAIN STATE  
 2                   REGULATIONS.—Notwithstanding subparagraph  
 3                   (A), a standard prescribed or established under  
 4                   section 342(a) with respect to the equipment  
 5                   specified in subparagraphs (B), (C), (D), (H),  
 6                   (I), and (J) of section 340 shall not supersede  
 7                   a State regulation that is effective under the  
 8                   terms, conditions, criteria, procedures, and  
 9                   other requirements of section 327(e).”.

10 **SEC. 223. FURNACE FAN RULEMAKING.**

11           Section 325(f)(3) of the Energy Policy and Conserva-  
 12   tion Act (42 U.S.C. 6295(f)(3)) is amended by adding at  
 13   the end the following:

14                   “(E) FINAL RULE.—

15                   “(i) IN GENERAL.—The Secretary  
 16                   shall publish a final rule to carry out this  
 17                   subsection not later than December 31,  
 18                   2014.

19                   “(ii) CRITERIA.—The standards shall  
 20                   meet the criteria established under sub-  
 21                   section (o).”.

22 **SEC. 224. EXPEDITED RULEMAKINGS.**

23           Section 325 of the Energy Policy and Conservation  
 24   Act (42 U.S.C. 6295) is amended by adding at the end  
 25   the following:

1       “(hh) EXPEDITED RULEMAKING FOR CONSENSUS  
2 STANDARDS.—

3               “(1) IN GENERAL.—The Secretary shall con-  
4 duct an expedited rulemaking based on an energy  
5 conservation standard or test procedure rec-  
6 ommended by interested persons, if—

7                       “(A) the interested persons (demonstrating  
8 significant and broad support from manufactur-  
9 ers of a covered product, States, utilities, and  
10 environmental, energy efficiency, and consumer  
11 advocates) submit a joint comment or petition  
12 recommending a consensus energy conservation  
13 standard or test procedure; and

14                       “(B) the Secretary determines that the  
15 joint comment or petition includes evidence that  
16 (assuming no other evidence were considered)  
17 provides an adequate basis for determining that  
18 the proposed consensus energy conservation  
19 standard or test procedure proposed in the joint  
20 comment or petition complies with the provi-  
21 sions and criteria of this Act (including sub-  
22 section (o)) that apply to the type or class of  
23 covered products covered by the joint comment  
24 or petition.

25               “(2) PROCEDURE.—

1           “(A) IN GENERAL.—Notwithstanding sub-  
2           section (p) or section 336(a), if the Secretary  
3           receives a joint comment or petition that meets  
4           the criteria described in paragraph (1), the Sec-  
5           retary shall conduct an expedited rulemaking  
6           with respect to the standard or test procedure  
7           proposed in the joint comment or petition in ac-  
8           cordance with this paragraph.

9           “(B) ADVANCED NOTICE OF PROPOSED  
10          RULEMAKING.—If no advanced notice of pro-  
11          posed rulemaking has been issued under sub-  
12          section (p)(1) with respect to the rulemaking  
13          covered by the joint comment or petition, the  
14          requirements of subsection (p) with respect to  
15          the issuance of an advanced notice of proposed  
16          rulemaking shall not apply.

17          “(C) PUBLICATION OF DETERMINATION.—  
18          Not later than 60 days after receipt of a joint  
19          comment or petition described in paragraph  
20          (1)(A), the Secretary shall publish a description  
21          of a determination as to whether the proposed  
22          standard or test procedure covered by the joint  
23          comment or petition meets the criteria de-  
24          scribed in paragraph (1).

25          “(D) PROPOSED RULE.—

1           “(i) PUBLICATION.—If the Secretary  
2           determines that the proposed consensus  
3           standard or test procedure covered by the  
4           joint comment or petition meets the cri-  
5           teria described in paragraph (1), not later  
6           than 30 days after the determination, the  
7           Secretary shall publish a proposed rule  
8           proposing the consensus standard or test  
9           procedure covered by the joint comment or  
10          petition.

11          “(ii) PUBLIC COMMENT PERIOD.—  
12          Notwithstanding paragraphs (2) and (3) of  
13          subsection (p), the public comment period  
14          for the proposed rule shall be the 30-day  
15          period beginning on the date of the publi-  
16          cation of the proposed rule in the Federal  
17          Register.

18          “(iii) PUBLIC HEARING.—Notwith-  
19          standing section 336(a), the Secretary may  
20          waive the holding of a public hearing with  
21          respect to the proposed rule.

22          “(E) FINAL RULE.—Notwithstanding sub-  
23          section (p)(4), the Secretary—

24                 “(i) may publish a final rule at any  
25                 time after the 60-day period beginning on

1 the date of publication of the proposed rule  
2 in the Federal Register; and  
3 “(ii) shall publish a final rule not  
4 later than 120 days after the date of publi-  
5 cation of the proposed rule in the Federal  
6 Register.”.

7 **SEC. 225. PERIODIC REVIEWS.**

8 (a) TEST PROCEDURES.—Section 323(b)(1) of the  
9 Energy Policy and Conservation Act (42 U.S.C.  
10 6293(b)(1)) is amended by striking “(1)” and all that fol-  
11 lows through the end of the paragraph and inserting the  
12 following:

13 “(1) TEST PROCEDURES.—

14 “(A) AMENDMENT.—At least once every 7  
15 years, the Secretary shall review test procedures  
16 for all covered products and—

17 “(i) amend test procedures with re-  
18 spect to any covered product, if the Sec-  
19 retary determines that amended test proce-  
20 dures would more accurately or fully com-  
21 ply with the requirements of paragraph  
22 (3); or

23 “(ii) publish notice in the Federal  
24 Register of any determination not to  
25 amend a test procedure.”.

1 (b) ENERGY CONSERVATION STANDARDS.—Section  
2 325 of the Energy Policy and Conservation Act (42 U.S.C.  
3 6295) is amended by striking subsection (m) and inserting  
4 the following:

5 “(m) FURTHER RULEMAKING.—

6 “(1) IN GENERAL.—After issuance of the last  
7 final rules required for a product under this part,  
8 the Secretary shall, not later than 5 years after the  
9 date of issuance of a final rule establishing or  
10 amending a standard or determining not to amend  
11 a standard, publish a final rule to determine whether  
12 standards for the product should be amended based  
13 on the criteria described in subsection (n)(2).

14 “(2) ANALYSIS.—Prior to publication of the de-  
15 termination, the Secretary shall publish a notice of  
16 availability describing the analysis of the Depart-  
17 ment and provide opportunity for written comment.

18 “(3) FINAL RULE.—Not later than 3 years  
19 after a positive determination under paragraph (1),  
20 the Secretary shall publish a final rule amending the  
21 standard for the product.

22 “(4) APPLICATION OF AMENDMENT.—An  
23 amendment prescribed under this subsection shall  
24 apply to a product manufactured after a date that  
25 is 5 years after—

1           “(A) the effective date of the previous  
2 amendment made pursuant to this part; or

3           “(B) if the previous final rule published  
4 under this part did not amend the standard, the  
5 earliest date by which a previous amendment  
6 could have been in effect, except that in no case  
7 may an amended standard apply to products  
8 manufactured within 3 years after publication  
9 of the final rule establishing a standard.”.

10       (c) STANDARDS.—Section 342(a) of the Energy Pol-  
11 icy and Conservation Act (42 U.S.C. 6313(a)) is amended  
12 by striking paragraph (6) and inserting the following:

13           “(6) AMENDED ENERGY EFFICIENCY STAND-  
14 ARDS.—

15           “(A) ANALYSIS OF POTENTIAL ENERGY  
16 SAVINGS.—If ASHRAE/IES Standard 90.1 is  
17 amended with respect to any small commercial  
18 package air conditioning and heating equip-  
19 ment, large commercial package air condi-  
20 tioning and heating equipment, packaged ter-  
21 minal central and commercial air conditioners,  
22 packaged terminal heat pumps, warm-air fur-  
23 naces, packaged boilers, storage water heaters,  
24 instantaneous water heaters, or unfired hot  
25 water storage tanks, not later than 180 days



1 after the amendment of the standard, the Sec-  
 2 retary shall publish in the Federal Register for  
 3 public comment an analysis of the energy sav-  
 4 ings potential of amended energy efficiency  
 5 standards.

6 “(B) AMENDED UNIFORM NATIONAL  
 7 STANDARD FOR PRODUCTS.—

8 “(i) IN GENERAL.—Except as pro-  
 9 vided in clause (ii), not later than 18  
 10 months after the date of publication of the  
 11 amendment to the ASHRAE/IES Standard  
 12 90.1 for a product described in subpara-  
 13 graph (A), the Secretary shall establish an  
 14 amended uniform national standard for the  
 15 product at the minimum level for the appli-  
 16 cable effective date specified in the amend-  
 17 ed ASHRAE/IES Standard 90.1.

18 “(ii) MORE STRINGENT STANDARD.—  
 19 Clause (i) shall not apply if the Secretary  
 20 determines, by rule published in the Fed-  
 21 eral Register, and supported by clear and  
 22 convincing evidence, that adoption of a  
 23 uniform national standard more stringent  
 24 than the amended ASHRAE/IES Standard  
 25 90.1 for the product would result in sig-

1           nificant additional conservation of energy  
2           and is technologically feasible and economi-  
3           cally justified.

4           “(C) RULE.—If the Secretary makes a de-  
5           termination described in subparagraph (B)(ii)  
6           for a product described in subparagraph (A),  
7           not later than 30 months after the date of pub-  
8           lication of the amendment to the ASHRAE/IES  
9           Standard 90.1 for the product, the Secretary  
10          shall issue the rule establishing the amended  
11          standard.

12          “(D) AMENDMENT OF STANDARDS.—

13               “(i) IN GENERAL.—After issuance of  
14               the most recent final rule for a product  
15               under this subsection, not later than 5  
16               years after the date of issuance of a final  
17               rule establishing or amending a standard  
18               or determining not to amend a standard,  
19               the Secretary shall publish a final rule to  
20               determine whether standards for the prod-  
21               uct should be amended based on the cri-  
22               teria described in subparagraph (A).

23               “(ii) ANALYSIS.—Prior to publication  
24               of the determination, the Secretary shall  
25               publish a notice of availability describing

1 the analysis of the Department and pro-  
 2 vide opportunity for written comment.

3 “(iii) FINAL RULE.—Not later than 3  
 4 years after a positive determination under  
 5 clause (i), the Secretary shall publish a  
 6 final rule amending the standard for the  
 7 product.”.

8 (d) TEST PROCEDURES.—Section 343(a) of the En-  
 9 ergy Policy and Conservation Act (42 U.S.C. 6313(a)) is  
 10 amended by striking “(a)” and all that follows through  
 11 the end of paragraph (1) and inserting the following:

12 “(a) PRESCRIPTION BY SECRETARY; REQUIRE-  
 13 MENTS.—

14 “(1) TEST PROCEDURES.—

15 “(A) AMENDMENT.—At least once every 7  
 16 years, the Secretary shall conduct an evaluation  
 17 of each class of covered equipment and—

18 “(i) if the Secretary determines that  
 19 amended test procedures would more accu-  
 20 rately or fully comply with the require-  
 21 ments of paragraphs (2) and (3), shall pre-  
 22 scribe test procedures for the class in ac-  
 23 cordance with this section; or

1 “(ii) shall publish notice in the Fed-  
2 eral Register of any determination not to  
3 amend a test procedure.”.

4 (e) EFFECTIVE DATE.—The amendments made by  
5 subsections (b) and (c) take effect on January 1, 2012.

6 **SEC. 226. ENERGY EFFICIENCY LABELING FOR CONSUMER**  
7 **PRODUCTS.**

8 (a) IN GENERAL.—Not later than 2 years after the  
9 date of enactment of this Act or not later than 18 months  
10 after test procedures have been developed for a consumer  
11 electronics product category described in subsection (b),  
12 whichever is later, the Federal Trade Commission, in con-  
13 sultation with the Secretary and the Administrator of the  
14 Environmental Protection Agency shall promulgate regu-  
15 lations, in accordance with the Energy Star program and  
16 in a manner that minimizes, to the maximum extent prac-  
17 ticable, duplication with respect to the requirements of  
18 that program and other national and international energy  
19 labeling programs, to add the consumer electronics prod-  
20 uct categories described in subsection (b) to the Energy  
21 Guide labeling program of the Commission.

22 (b) CONSUMER ELECTRONICS PRODUCT CAT-  
23 EGORIES.—The consumer electronics product categories  
24 referred to in subsection (a) are the following:

25 (1) Televisions.

1 (2) Personal computers.

2 (3) Cable or satellite set-top boxes.

3 (4) Stand-alone digital video recorder boxes.

4 (5) Computer monitors.

5 (c) LABEL PLACEMENT.—The regulations shall in-  
6 clude specific requirements for each product on the place-  
7 ment of Energy Guide labels.

8 (d) DEADLINE FOR LABELING.—Not later than 1  
9 year after the date of promulgation of regulations under  
10 subsection (a), the Commission shall require labeling elec-  
11 tronic products described in subsection (b) in accordance  
12 with this section (including the regulations).

13 (e) AUTHORITY TO INCLUDE ADDITIONAL PRODUCT  
14 CATEGORIES.—The Commission may add additional prod-  
15 uct categories to the Energy Guide labeling program if  
16 the product categories include products, as determined by  
17 the Commission—

18 (1) that have an annual energy use in excess of  
19 100 kilowatt hours per year; and

20 (2) for which there is a significant difference in  
21 energy use between the most and least efficient  
22 products.

23 **SEC. 227. RESIDENTIAL BOILER EFFICIENCY STANDARDS.**

24 Section 325(f) of the Energy Policy and Conservation  
25 Act (42 U.S.C. 6295(f)) is amended—

1 (1) by redesignating paragraph (3) as para-  
 2 graph (4); and

3 (2) by inserting after paragraph (2) the fol-  
 4 lowing:

5 “(3) BOILERS.—

6 “(A) IN GENERAL.—Subject to subpara-  
 7 graphs (B) and (C), boilers manufactured on or  
 8 after September 1, 2012, shall meet the fol-  
 9 lowing requirements:

| Boiler Type        | Minimum Annual Fuel Utilization Efficiency | Design Requirements  |
|--------------------|--|--|
| Gas Hot Water      | 82%  | No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature |
| Gas Steam          | 80%  | No Constant Burning Pilot  |
| Oil Hot Water      | 84%  | Automatic Means for Adjusting Temperature                                  |
| Oil Steam          | 82%  | None   |
| Electric Hot Water | None                                       | Automatic Means for Adjusting Temperature                                  |
| Electric Steam     | None                                       | None   |

10 “(B) PILOTS.—The manufacturer shall not  
 11 equip gas hot water or steam boilers with con-  
 12 stant-burning pilot lights.

13 “(C) AUTOMATIC MEANS FOR ADJUSTING  
 14 WATER TEMPERATURE.—

15 “(i) IN GENERAL.—The manufacturer  
 16 shall equip each gas, oil, and electric hot  
 17 water boiler (other than a boiler equipped

1 with tankless domestic water heating coils)  
2 with an automatic means for adjusting the  
3 temperature of the water supplied by the  
4 boiler to ensure that an incremental  
5 change in inferred heat load produces a  
6 corresponding incremental change in the  
7 temperature of water supplied.

8 “(ii) CERTAIN BOILERS.—For a boiler  
9 that fires at 1 input rate, the requirements  
10 of this subparagraph may be satisfied by  
11 providing an automatic means that allows  
12 the burner or heating element to fire only  
13 when the means has determined that the  
14 inferred heat load cannot be met by the re-  
15 sidual heat of the water in the system.

16 “(iii) NO INFERRED HEAT LOAD.—  
17 When there is no inferred heat load with  
18 respect to a hot water boiler, the automatic  
19 means described in clauses (i) and (ii)  
20 shall limit the temperature of the water in  
21 the boiler to not more than 140 degrees  
22 Fahrenheit.

23 “(iv) OPERATION.—A boiler described  
24 in clause (i) or (ii) shall be operable only

1                   when the automatic means described in  
2                   clauses (i), (ii), and (iii) is installed.”.

3 **SEC. 228. TECHNICAL CORRECTIONS.**

4           (a) DEFINITION OF FLUORESCENT LAMP.—Section  
5 321(30)(B)(viii) of the Energy Policy and Conservation  
6 Act (42 U.S.C. 6291(30)(B)(viii)) is amended by striking  
7 “82” and inserting “87”.

8           (b) STANDARDS FOR COMMERCIAL PACKAGE AIR  
9 CONDITIONING AND HEATING EQUIPMENT.—Section  
10 342(a)(1) of the Energy Policy and Conservation Act (42  
11 U.S.C. 6313(a)(1)) is amended in the matter preceding  
12 subparagraph (A) by striking “but before January 1,  
13 2010,”.

14           (c) MERCURY VAPOR LAMP BALLASTS.—

15                   (1) DEFINITIONS.—Section 321 of the Energy  
16 Policy and Conservation Act (42 U.S.C. 6291) (as  
17 amended by section 212(a)(2)) is amended—

18                           (A) in paragraph (46)(A)—

19                                   (i) in clause (i), by striking “bulb”  
20                                   and inserting “the arc tube”; and

21                                   (ii) in clause (ii), by striking “has a  
22                                   bulb” and inserting “wall loading is”;

23                           (B) in paragraph (47)(A), by striking “op-  
24                           erating at a partial” and inserting “typically  
25                           operating at a partial vapor”;



1 (C) in paragraph (48), by inserting “in-  
 2 tended for general illumination” after “lamps”;  
 3 and

4 (D) by adding at the end the following:

5 “(56) The term ‘specialty application mercury  
 6 vapor lamp ballast’ means a mercury vapor lamp  
 7 ballast that—

8 “(A) is designed and marketed for medical  
 9 use, optical comparators, quality inspection, in-  
 10 dustrial processing, or scientific use, including  
 11 fluorescent microscopy, ultraviolet curing, and  
 12 the manufacture of microchips, liquid crystal  
 13 displays, and printed circuit boards; and

14 “(B) in the case of a specialty application  
 15 mercury vapor lamp ballast, is labeled as a spe-  
 16 cialty application mercury vapor lamp ballast.”.

17 (2) STANDARD SETTING AUTHORITY.—Section  
 18 325(ee) of the Energy Policy and Conservation Act  
 19 (42 U.S.C. 6295(ee)) is amended by inserting  
 20 “(other than specialty application mercury vapor  
 21 lamp ballasts)” after “ballasts”.

22 **SEC. 229. ELECTRIC MOTOR EFFICIENCY STANDARDS.**

23 (a) DEFINITIONS.—Section 340(13) of the Energy  
 24 Policy and Conservation Act (42 U.S.C. 6311(13)) is

1 amended by striking subparagraph (A) and inserting the  
2 following:

3 “(A)(i) The term ‘electric motor’ means—

4 “(I) a general purpose electric motor—  
5 subtype I; and

6 “(II) a general purpose electric motor—  
7 subtype II.

8 “(ii) The term ‘general purpose electric  
9 motor—subtype I’ means any motor that is consid-  
10 ered a general purpose motor under section 431.12  
11 of title 10, Code of Federal Regulations (or suc-  
12 cessor regulations).

13 “(iii) The term ‘general purpose electric  
14 motor—subtype II’ means a motor that, in addition  
15 to the design elements for a general purpose electric  
16 motor—subtype I, incorporates the design elements  
17 (as established in National Electrical Manufacturers  
18 Association MG–1 (2006)) for any of the following:

19 “(I) A U–Frame Motor.

20 “(II) A Design C Motor.

21 “(III) A close-coupled pump motor.

22 “(IV) A footless motor.

23 “(V) A vertical solid shaft normal thrust  
24 (tested in a horizontal configuration).

25 “(VI) An 8-pole motor.

1           “(VII) A poly-phase motor with voltage of  
2           not more than 600 volts (other than 230 or 460  
3           volts).”.

4           (b) STANDARDS.—Section 342(b) of the Energy Pol-  
5    icy and Conservation Act (42 U.S.C. 6313(13)) is amend-  
6    ed by striking paragraph (1) and inserting the following:

7           “(1) STANDARDS.—

8           “(A) GENERAL PURPOSE ELECTRIC MO-  
9           TORS—SUBTYPE I.—

10           “(i) IN GENERAL.—Except as other-  
11           wise provided in this subparagraph, a gen-  
12           eral purpose electric motor—subtype I  
13           with a power rating of not less than 1, and  
14           not more than 200, horsepower manufac-  
15           tured (alone or as a component of another  
16           piece of equipment) after the 3-year period  
17           beginning on the date of enactment of this  
18           subparagraph, shall have a nominal full  
19           load efficiency established in Table 12–12  
20           of National Electrical Manufacturers Asso-  
21           ciation (referred to in this paragraph as  
22           ‘NEMA’) MG–1 (2006).

23           “(ii) FIRE PUMP MOTORS.—A fire  
24           pump motor shall have a nominal full load

1 efficiency established in Table 12–11 of  
2 NEMA MG–1 (2006).

3 “(B) GENERAL PURPOSE ELECTRIC MO-  
4 TORS—SUBTYPE II.—A general purpose electric  
5 motor—subtype II with a power rating of not  
6 less than 1, and not more than 200, horsepower  
7 manufactured (alone or as a component of an-  
8 other piece of equipment) after the 3-year pe-  
9 riod beginning on the date of enactment of this  
10 subparagraph, shall have a nominal full load ef-  
11 ficiency established in Table 12–11 of NEMA  
12 MG–1 (2006).

13 “(C) DESIGN B, GENERAL PURPOSE ELEC-  
14 TRIC MOTORS.—A NEMA Design B, general  
15 purpose electric motor with a power rating of  
16 not less than 201, and not more than 500,  
17 horsepower manufactured (alone or as a compo-  
18 nent of another piece of equipment) after the 3-  
19 year period beginning on the date of the enact-  
20 ment of this subparagraph shall have a nominal  
21 full load efficiency established in Table 12–11  
22 of NEMA MG–1 (2006).”.

23 (c) EFFECTIVE DATE.—The amendments made by  
24 this section take effect on the date that is 3 years after  
25 the date of enactment of this Act.

1 **SEC. 230. ENERGY STANDARDS FOR HOME APPLIANCES.**

2 (a) DEFINITION OF ENERGY CONSERVATION STAND-  
3 ARD.—Section 321(6)(A) of the Energy Policy and Con-  
4 servation Act (42 U.S.C. 6291(6)(A)) is amended by strik-  
5 ing “or, in the case of” and inserting “and, in the case  
6 of residential clothes washers, residential dishwashers,”.

7 (b) REFRIGERATORS, REFRIGERATOR-FREEZERS,  
8 AND FREEZERS.—Section 325(b) of the Energy Policy  
9 and Conservation Act (42 U.S.C. 6295(b)) is amended by  
10 adding at the end the following:

11 “(4) REFRIGERATORS, REFRIGERATOR-FREEZ-  
12 ERS, AND FREEZERS MANUFACTURED ON OR AFTER  
13 JANUARY 1, 2014.—Not later than December 31,  
14 2010, the Secretary shall publish a final rule deter-  
15 mining whether to amend the standards in effect for  
16 refrigerators, refrigerator-freezers, and freezers  
17 manufactured on or after January 1, 2014, and in-  
18 cluding any amended standards.”.

19 (c) RESIDENTIAL CLOTHES WASHERS AND DISH-  
20 WASHERS.—Section 325(g)(4) of the Energy Policy and  
21 Conservation Act (42 U.S.C. 6295(g)(4)) is amended by  
22 adding at the end the following:

23 “(D) CLOTHES WASHERS.—

24 “(i) CLOTHES WASHERS MANUFAC-  
25 TURED ON OR AFTER JANUARY 1, 2011.—

1 A residential clothes washer manufactured  
2 on or after January 1, 2011, shall have—

3 “(I) a modified energy factor of  
4 at least 1.26; and

5 “(II) a water factor of not more  
6 than 9.5.

7 “(ii) CLOTHES WASHERS MANUFAC-  
8 TURED ON OR AFTER JANUARY 1, 2012.—

9 Not later than January 1, 2012, the Sec-  
10 retary shall publish a final rule deter-  
11 mining whether to amend the standards in  
12 effect for residential clothes washers manu-  
13 factured on or after January 1, 2012, and  
14 including any amended standards.

15 “(E) DISHWASHERS.—

16 “(i) DISHWASHERS MANUFACTURED  
17 ON OR AFTER JANUARY 1, 2010.—A dish-  
18 washer manufactured on or after January  
19 1, 2010, shall use not more than—

20 “(I) in the case of a standard-  
21 size dishwasher, 355 kWh per year or  
22 6.5 gallons of water per cycle; and

23 “(II) in the case of a compact-  
24 size dishwasher, 260 kWh per year or  
25 4.5 gallons of water per cycle.

1 “(ii) DISHWASHERS MANUFACTURED  
 2 ON OR AFTER JANUARY 1, 2018.—Not later  
 3 than January 1, 2015, the Secretary shall  
 4 publish a final rule determining whether to  
 5 amend the standards for dishwashers man-  
 6 ufactured on or after January 1, 2018,  
 7 and including any amended standards.”.

8 (d) DEHUMIDIFIERS.—Section 325(cc) of the Energy  
 9 Policy and Conservation Act (42 U.S.C. 6295(cc)) is  
 10 amended—

11 (1) in paragraph (1), by inserting “and before  
 12 October 1, 2012,” after “2007,”; and

13 (2) by striking paragraph (2) and inserting the  
 14 following:

15 “(2) DEHUMIDIFIERS MANUFACTURED ON OR  
 16 AFTER OCTOBER 1, 2012.—Dehumidifiers manufac-  
 17 tured on or after October 1, 2012, shall have an En-  
 18 ergy Factor that meets or exceeds the following val-  
 19 ues:

| Product Capacity (pints/day): | Minimum Energy<br>Factor liters/kWh |
|-------------------------------|-------------------------------------|
| Up to 35.00 .....             | 1.35                                |
| 35.01–45.00 .....             | 1.50                                |
| 45.01–54.00 .....             | 1.60                                |
| 54.01–75.00 .....             | 1.70                                |
| Greater than 75.00 .....      | 2.5.”                               |

20 (e) ENERGY STAR PROGRAM.—Section 324A(d)(2) of  
 21 the Energy Policy and Conservation Act (42 U.S.C.

1 6294a(d)(2)) is amended by striking “2010” and inserting  
2 “2009”.

3 **SEC. 231. IMPROVED ENERGY EFFICIENCY FOR APPLI-**  
4 **ANCES AND BUILDINGS IN COLD CLIMATES.**

5 (a) RESEARCH.—Section 911(a)(2) of the Energy  
6 Policy Act of 2005 (42 U.S.C. 16191(a)(2)) is amended—

7 (1) in subparagraph (C), by striking “and” at  
8 the end;

9 (2) in subparagraph (D), by striking the period  
10 at the end and inserting “; and”; and

11 (3) by adding at the end the following:

12 “(E) technologies to improve the energy ef-  
13 ficiency of appliances and mechanical systems  
14 for buildings in cold climates, including com-  
15 bined heat and power units and increased use  
16 of renewable resources, including fuel.”.

17 (b) REBATES.—Section 124 of the Energy Policy Act  
18 of 2005 (42 U.S.C. 15821) is amended—

19 (1) in subsection (b)(1), by inserting “, or prod-  
20 ucts with improved energy efficiency in cold cli-  
21 mates,” after “residential Energy Star products”;  
22 and

23 (2) in subsection (e), by inserting “or product  
24 with improved energy efficiency in a cold climate”



1 after “residential Energy Star product” each place  
2 it appears.

3 **SEC. 232. DEPLOYMENT OF NEW TECHNOLOGIES FOR**  
4 **HIGH-EFFICIENCY CONSUMER PRODUCTS.**

5 (a) DEFINITIONS.—In this section:

6 (1) ENERGY SAVINGS.—The term “energy sav-  
7 ings” means megawatt-hours of electricity or million  
8 British thermal units of natural gas saved by a  
9 product, in comparison to projected energy consump-  
10 tion under the energy efficiency standard applicable  
11 to the product.

12 (2) HIGH-EFFICIENCY CONSUMER PRODUCT.—  
13 The term “high-efficiency consumer product” means  
14 a product that exceeds the energy efficiency of com-  
15 parable products available in the market by a per-  
16 centage determined by the Secretary to be an appro-  
17 priate benchmark for the consumer product category  
18 competing for an award under this section.

19 (b) FINANCIAL INCENTIVES PROGRAM.—Effective  
20 beginning October 1, 2007, the Secretary shall competi-  
21 tively award financial incentives under this section for the  
22 manufacture of high-efficiency consumer products.

23 (c) REQUIREMENTS.—

24 (1) IN GENERAL.—The Secretary shall make  
25 awards under this section to manufacturers of high-

1 efficiency consumer products, based on the bid of  
2 each manufacturer in terms of dollars per megawatt-  
3 hour or million British thermal units saved.

4 (2) ACCEPTANCE OF BIDS.—In making awards  
5 under this section, the Secretary shall—

6 (A) solicit bids for reverse auction from  
7 appropriate manufacturers, as determined by  
8 the Secretary; and

9 (B) award financial incentives to the man-  
10 ufacturers that submit the lowest bids that  
11 meet the requirements established by the Sec-  
12 retary.

13 (d) FORMS OF AWARDS.—An award for a high-effi-  
14 ciency consumer product under this section shall be in the  
15 form of a lump sum payment in an amount equal to the  
16 product obtained by multiplying—

17 (1) the amount of the bid by the manufacturer  
18 of the high-efficiency consumer product; and

19 (2) the energy savings during the projected use-  
20 ful life of the high-efficiency consumer product, not  
21 to exceed 10 years, as determined under regulations  
22 issued by the Secretary.

23 **SEC. 233. INDUSTRIAL EFFICIENCY PROGRAM.**

24 (a) DEFINITIONS.—In this section:

1 (1) ELIGIBLE ENTITY.—The term eligible entity  
2 means—

3 (A) an institution of higher education  
4 under contract or in partnership with a non-  
5 profit or for-profit private entity acting on be-  
6 half of an industrial or commercial sector or  
7 subsector;

8 (B) a nonprofit or for-profit private entity  
9 acting on behalf on an industrial or commercial  
10 sector or subsector; or

11 (C) a consortia of entities acting on behalf  
12 of an industrial or commercial sector or sub-  
13 sector.

14 (2) ENERGY-INTENSIVE COMMERCIAL APPLICA-  
15 TIONS.—The term “energy-intensive commercial ap-  
16 plications” means processes and facilities that use  
17 significant quantities of energy as part of the pri-  
18 mary economic activities of the processes and facili-  
19 ties, including—

20 (A) information technology data centers;

21 (B) product manufacturing; and

22 (C) food processing.

23 (3) FEEDSTOCK.—The term “feedstock” means  
24 the raw material supplied for use in manufacturing,  
25 chemical, and biological processes.

1           (4) MATERIALS MANUFACTURERS.—The term  
2           “materials manufacturers” means the energy-inten-  
3           sive primary manufacturing industries, including the  
4           aluminum, chemicals, forest and paper products,  
5           glass, metal casting, and steel industries.

6           (5) PARTNERSHIP.—The term “partnership”  
7           means an energy efficiency and utilization partner-  
8           ship established under subsection (c)(1)(A).

9           (6) PROGRAM.—The term “program” means  
10          the industrial efficiency program established under  
11          subsection (b).

12         (b) ESTABLISHMENT OF PROGRAM.—The Secretary  
13         shall establish a program under which the Secretary, in  
14         cooperation with materials manufacturers, companies en-  
15         gaged in energy-intensive commercial applications, and  
16         national industry trade associations representing the man-  
17         ufactures and companies, shall support, develop, and pro-  
18         mote the use of new materials manufacturing and indus-  
19         trial and commercial processes, technologies, and tech-  
20         niques to optimize energy efficiency and the economic  
21         competitiveness of the United States.

22         (c) PARTNERSHIPS.—

23                 (1) IN GENERAL.—As part of the program, the  
24         Secretary shall—

1 (A) establish energy efficiency and utiliza-  
2 tion partnerships between the Secretary and eli-  
3 gible entities to conduct research on, develop,  
4 and demonstrate new processes, technologies,  
5 and operating practices and techniques to sig-  
6 nificantly improve energy efficiency and utiliza-  
7 tion by materials manufacturers and in energy-  
8 intensive commercial applications, including the  
9 conduct of activities to—

10 (i) increase the energy efficiency of in-  
11 dustrial and commercial processes and fa-  
12 cilities in energy-intensive commercial ap-  
13 plication sectors;

14 (ii) research, develop, and dem-  
15 onstrate advanced technologies capable of  
16 energy intensity reductions and increased  
17 environmental performance in energy-in-  
18 tensive commercial application sectors; and

19 (iii) promote the use of the processes,  
20 technologies, and techniques described in  
21 clauses (i) and (ii); and

22 (B) pay the Federal share of the cost of  
23 any eligible partnership activities for which a  
24 proposal has been submitted and approved in  
25 accordance with paragraph (3)(B).

1           (2) ELIGIBLE ACTIVITIES.—Partnership activi-  
2       ties eligible for financial assistance under this sub-  
3       section include—

4           (A) feedstock and recycling research, devel-  
5       opment, and demonstration activities to identify  
6       and promote—

7           (i) opportunities for meeting manufac-  
8       turing feedstock requirements with more  
9       energy efficient and flexible sources of  
10      feedstock or energy supply;

11          (ii) strategies to develop and deploy  
12      technologies that improve the quality and  
13      quantity of feedstocks recovered from proc-  
14      ess and waste streams; and

15          (iii) other methods using recycling,  
16      reuse, and improved industrial materials;

17          (B) industrial and commercial energy effi-  
18      ciency and sustainability assessments to—

19          (i) assist individual industrial and  
20      commercial sectors in developing tools,  
21      techniques, and methodologies to assess—

22              (I) the unique processes and fa-  
23          cilities of the sectors;

24              (II) the energy utilization re-  
25          quirements of the sectors; and

1 (III) the application of new, more  
2 energy efficient technologies; and

3 (ii) conduct energy savings assess-  
4 ments;

5 (C) the incorporation of technologies and  
6 innovations that would significantly improve the  
7 energy efficiency and utilization of energy-inten-  
8 sive commercial applications; and

9 (D) any other activities that the Secretary  
10 determines to be appropriate.

11 (3) PROPOSALS.—

12 (A) IN GENERAL.—To be eligible for finan-  
13 cial assistance under this subsection, a partner-  
14 ship shall submit to the Secretary a proposal  
15 that describes the proposed research, develop-  
16 ment, or demonstration activity to be conducted  
17 by the partnership.

18 (B) REVIEW.—After reviewing the sci-  
19 entific, technical, and commercial merit of a  
20 proposals submitted under subparagraph (A),  
21 the Secretary shall approve or disapprove the  
22 proposal.

23 (C) COMPETITIVE AWARDS.—The provision  
24 of financial assistance under this subsection  
25 shall be on a competitive basis.

1           (4) COST-SHARING REQUIREMENT.—In carrying  
2       out this section, the Secretary shall require cost  
3       sharing in accordance with section 988 of the En-  
4       ergy Policy Act of 2005 (42 U.S.C. 16352).

5       (d) AUTHORIZATION OF APPROPRIATIONS.—

6           (1) IN GENERAL.—There are authorized to be  
7       appropriated to the Secretary to carry out this sec-  
8       tion—

9                   (A) \$184,000,000 for fiscal year 2008;

10                   (B) \$190,000,000 for fiscal year 2009;

11                   (C) \$196,000,000 for fiscal year 2010;

12                   (D) \$202,000,000 for fiscal year 2011;

13                   (E) \$208,000,000 for fiscal year 2012; and

14                   (F) such sums as are necessary for fiscal  
15       year 2013 and each fiscal year thereafter.

16       (2) PARTNERSHIP ACTIVITIES.—Of the  
17       amounts made available under paragraph (1), not  
18       less than 50 percent shall be used to pay the Fed-  
19       eral share of partnership activities under subsection  
20       (c).



1 **Subtitle C—Promoting High Effi-**  
2 **ciency Vehicles, Advanced Bat-**  
3 **teries, and Energy Storage**

4 **SEC. 241. LIGHTWEIGHT MATERIALS RESEARCH AND DE-**  
5 **VELOPMENT.**

6 (a) IN GENERAL.—As soon as practicable after the  
7 date of enactment of this Act, the Secretary shall establish  
8 a research and development program to determine ways  
9 in which—

10 (1) the weight of vehicles may be reduced to im-  
11 prove fuel efficiency without compromising pas-  
12 senger safety; and

13 (2) the cost of lightweight materials (such as  
14 steel alloys, fiberglass, and carbon composites) re-  
15 quired for the construction of lighter-weight vehicles  
16 may be reduced.

17 (b) AUTHORIZATION OF APPROPRIATIONS.—There is  
18 authorized to be appropriated to carry out this section  
19 \$60,000,000 for each of fiscal years 2007 through 2012.

20 **SEC. 242. LOAN GUARANTEES FOR FUEL-EFFICIENT AUTO-**  
21 **MOBILE PARTS MANUFACTURERS.**

22 (a) IN GENERAL.—Section 712(a) of the Energy Pol-  
23 icy Act of 2005 (42 U.S.C. 16062(a)) is amended in the  
24 second sentence by striking “grants to automobile manu-  
25 facturers” and inserting “grants and loan guarantees

1 under section 1703 to automobile manufacturers and sup-  
2 pliers”.

3 (b) CONFORMING AMENDMENT.—Section 1703(b) of  
4 the Energy Policy Act of 2005 (42 U.S.C. 16513(b)) is  
5 amended by striking paragraph (8) and inserting the fol-  
6 lowing:

7 “(8) Production facilities for the manufacture  
8 of fuel efficient vehicles or parts of those vehicles,  
9 including electric drive transportation technology  
10 and advanced diesel vehicles.”.

11 **SEC. 243. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**  
12 **TURING INCENTIVE PROGRAM.**

13 (a) DEFINITIONS.—In this section:

14 (1) ADJUSTED AVERAGE FUEL ECONOMY.—The  
15 term “adjusted average fuel economy” means the av-  
16 erage fuel economy of a manufacturer for all light  
17 duty vehicles produced by the manufacturer, ad-  
18 justed such that the fuel economy of each vehicle  
19 that qualifies for an award shall be considered to be  
20 equal to the average fuel economy for vehicles of a  
21 similar footprint for model year 2005.

22 (2) ADVANCED TECHNOLOGY VEHICLE.—The  
23 term “advanced technology vehicle” means a light  
24 duty vehicle that meets—

1 (A) the Bin 5 Tier II emission standard  
2 established in regulations issued by the Admin-  
3 istrator of the Environmental Protection Agen-  
4 cy under section 202(i) of the Clean Air Act  
5 (42 U.S.C. 7521(i)), or a lower-numbered Bin  
6 emission standard;

7 (B) any new emission standard for fine  
8 particulate matter prescribed by the Adminis-  
9 trator under that Act (42 U.S.C. 7401 et seq.);  
10 and

11 (C) at least 125 percent of the average  
12 base year combined fuel economy, calculated on  
13 an energy-equivalent basis, for vehicles of a  
14 substantially similar footprint.

15 (3) COMBINED FUEL ECONOMY.—The term  
16 “combined fuel economy” means—

17 (A) the combined city/highway miles per  
18 gallon values, as reported in accordance with  
19 section 32908 of title 49, United States Code;  
20 and

21 (B) in the case of an electric drive vehicle  
22 with the ability to recharge from an off-board  
23 source, the reported mileage, as determined in  
24 a manner consistent with the Society of Auto-  
25 motive Engineers recommended practice for

1           that configuration or a similar practice rec-  
2           ommended by the Secretary, using a petroleum  
3           equivalence factor for the off-board electricity  
4           (as defined in section 474 of title 10, Code of  
5           Federal Regulations).

6           (4) ENGINEERING INTEGRATION COSTS.—The  
7           term “engineering integration costs” includes the  
8           cost of engineering tasks relating to—

9                   (A) incorporating qualifying components  
10           into the design of advanced technology vehicles;  
11           and

12                   (B) designing new tooling and equipment  
13           for production facilities that produce qualifying  
14           components or advanced technology vehicles.

15           (5) QUALIFYING COMPONENTS.—The term  
16           “qualifying components” means components that the  
17           Secretary determines to be—

18                   (A) specially designed for advanced tech-  
19           nology vehicles; and

20                   (B) installed for the purpose of meeting  
21           the performance requirements of advanced tech-  
22           nology vehicles.

23           (b) ADVANCED VEHICLES MANUFACTURING FACIL-  
24           ITY.—The Secretary shall provide facility funding awards  
25           under this section to automobile manufacturers and com-

1 ponent suppliers to pay not more than 30 percent of the  
2 cost of—

3 (1) reequipping, expanding, or establishing a  
4 manufacturing facility in the United States to  
5 produce—

6 (A) qualifying advanced technology vehi-  
7 cles; or

8 (B) qualifying components; and

9 (2) engineering integration performed in the  
10 United States of qualifying vehicles and qualifying  
11 components.

12 (c) PERIOD OF AVAILABILITY.—An award under sub-  
13 section (b) shall apply to—

14 (1) facilities and equipment placed in service  
15 before December 30, 2017; and

16 (2) engineering integration costs incurred dur-  
17 ing the period beginning on the date of enactment  
18 of this Act and ending on December 30, 2017.

19 (d) IMPROVEMENT.—The Secretary shall issue regu-  
20 lations that require that, in order for an automobile manu-  
21 facturer to be eligible for an award under this section dur-  
22 ing a particular year, the adjusted average fuel economy  
23 of the manufacturer for light duty vehicles produced by  
24 the manufacturer during the most recent year for which  
25 data are available shall be not less than the average fuel

1 economy for all light duty vehicles of the manufacturer  
2 for model year 2005.

3 **SEC. 244. ENERGY STORAGE COMPETITIVENESS.**

4 (a) SHORT TITLE.—This section may be cited as the  
5 “United States Energy Storage Competitiveness Act of  
6 2007”.

7 (b) ENERGY STORAGE SYSTEMS FOR MOTOR TRANS-  
8 PORTATION AND ELECTRICITY TRANSMISSION AND DIS-  
9 TRIBUTION.—

10 (1) DEFINITIONS.—In this subsection:

11 (A) COUNCIL.—The term “Council” means  
12 the Energy Storage Advisory Council estab-  
13 lished under paragraph (3).

14 (B) COMPRESSED AIR ENERGY STOR-  
15 AGE.—The term “compressed air energy stor-  
16 age” means, in the case of an electricity grid  
17 application, the storage of energy through the  
18 compression of air.

19 (C) DEPARTMENT.—The term “Depart-  
20 ment” means the Department of Energy.

21 (D) FLYWHEEL.—The term “flywheel”  
22 means, in the case of an electricity grid applica-  
23 tion, a device used to store rotational kinetic  
24 energy.

1                   (E)       ULTRACAPACITOR.—The       term  
2       “ultracapacitor” means an energy storage de-  
3       vice that has a power density comparable to  
4       conventional capacitors but capable of exceeding  
5       the energy density of conventional capacitors by  
6       several orders of magnitude.

7                   (2) PROGRAM.—The Secretary shall carry out a  
8       research, development, and demonstration program  
9       to support the ability of the United States to remain  
10      globally competitive in energy storage systems for  
11      motor transportation and electricity transmission  
12      and distribution.

13                  (3) ENERGY STORAGE ADVISORY COUNCIL.—

14                   (A) ESTABLISHMENT.—Not later than 90  
15      days after the date of enactment of this Act,  
16      the Secretary shall establish an Energy Storage  
17      Advisory Council.

18                   (B) COMPOSITION.—

19                   (i) IN GENERAL.—Subject to clause  
20      (ii), the Council shall consist of not less  
21      than 15 individuals appointed by the Sec-  
22      retary, based on recommendations of the  
23      National Academy of Sciences.

24                   (ii) ENERGY STORAGE INDUSTRY.—  
25      The Council shall consist primarily of rep-

1           representatives of the energy storage industry  
2           of the United States.

3                   (iii) CHAIRPERSON.—The Secretary  
4           shall select a Chairperson for the Council  
5           from among the members appointed under  
6           clause (i)

7           (C) MEETINGS.—

8                   (i) IN GENERAL.—The Council shall  
9           meet not less than once a year.

10                   (ii) FEDERAL ADVISORY COMMITTEE  
11           ACT.—The Federal Advisory Committee  
12           Act (5 U.S.C. App. 2) shall apply to a  
13           meeting of the Council.

14           (D) PLANS.—No later than 1 year after  
15           the date of enactment of this Act, in conjunc-  
16           tion with the Secretary, the Council shall de-  
17           velop 5-year plans for integrating basic and ap-  
18           plied research so that the United States retains  
19           a globally competitive domestic energy storage  
20           industry for motor transportation and elec-  
21           tricity transmission and distribution.

22           (E) REVIEW.—The Council shall—

23                   (i) assess the performance of the De-  
24           partment in meeting the goals of the plans  
25           developed under subparagraph (D); and



1 (ii) make specific recommendations to  
2 the Secretary on programs or activities  
3 that should be established or terminated to  
4 meet those goals.

5 (4) BASIC RESEARCH PROGRAM.—

6 (A) BASIC RESEARCH.—The Secretary  
7 shall conduct a basic research program on en-  
8 ergy storage systems to support motor trans-  
9 portation and electricity transmission and dis-  
10 tribution, including—

11 (i) materials design;

12 (ii) materials synthesis and character-  
13 ization;

14 (iii) electrolytes, including bioelectro-  
15 lytes;

16 (iv) surface and interface dynamics;  
17 and

18 (v) modeling and simulation.

19 (B) NANOSCIENCE CENTERS.—The Sec-  
20 retary shall ensure that the nanoscience centers  
21 of the Department—

22 (i) support research in the areas de-  
23 scribed in subparagraph (A), as part of the  
24 mission of the centers; and

1 (ii) coordinate activities of the centers  
2 with activities of the Council.

3 (5) APPLIED RESEARCH PROGRAM.—The Sec-  
4 retary shall conduct an applied research program on  
5 energy storage systems to support motor transpor-  
6 tation and electricity transmission and distribution  
7 technologies, including—

8 (A) ultracapacitors;  
9 (B) flywheels;  
10 (C) batteries;  
11 (D) compressed air energy systems;  
12 (E) power conditioning electronics; and  
13 (F) manufacturing technologies for energy  
14 storage systems.

15 (6) ENERGY STORAGE RESEARCH CENTERS.—

16 (A) IN GENERAL.—The Secretary shall es-  
17 tablish, through competitive bids, 4 energy stor-  
18 age research centers to translate basic research  
19 into applied technologies to advance the capa-  
20 bility of the United States to maintain a glob-  
21 ally competitive posture in energy storage sys-  
22 tems for motor transportation and electricity  
23 transmission and distribution.

24 (B) PROGRAM MANAGEMENT.—The centers  
25 shall be jointly managed by the Under Sec-

1           retary for Science and the Under Secretary of  
2           Energy of the Department.

3           (C) PARTICIPATION AGREEMENTS.—As a  
4           condition of participating in a center, a partici-  
5           pant shall enter into a participation agreement  
6           with the center that requires that activities con-  
7           ducted by the participant for the center pro-  
8           mote the goal of enabling the United States to  
9           compete successfully in global energy storage  
10          markets.

11          (D) PLANS.—A center shall conduct activi-  
12          ties that promote the achievement of the goals  
13          of the plans of the Council under paragraph  
14          (3)(D).

15          (E) COST SHARING.—In carrying out this  
16          paragraph, the Secretary shall require cost-  
17          sharing in accordance with section 988 of the  
18          Energy Policy Act of 2005 (42 U.S.C. 16352).

19          (F) NATIONAL LABORATORIES.—A na-  
20          tional laboratory (as defined in section 2 of the  
21          Energy Policy Act of 2005 (42 U.S.C. 15801))  
22          may participate in a center established under  
23          this paragraph, including a cooperative research  
24          and development agreement (as defined in sec-

1           tion 12(d) of the Stevenson-Wydler Technology  
2           Innovation Act of 1980 (15 U.S.C. 3710a(d))).

3           (G) INTELLECTUAL PROPERTY.—A partici-  
4           pant shall be provided appropriate intellectual  
5           property rights commensurate with the nature  
6           of the participation agreement of the partici-  
7           pant.

8           (7) REVIEW BY NATIONAL ACADEMY OF  
9           SCIENCES.—Not later than 5 years after the date of  
10          enactment of this Act, the Secretary shall offer to  
11          enter into an arrangement with the National Acad-  
12          emy of Sciences to assess the performance of the  
13          Department in making the United States globally  
14          competitive in energy storage systems for motor  
15          transportation and electricity transmission and dis-  
16          tribution.

17          (8) AUTHORIZATION OF APPROPRIATIONS.—  
18          There are authorized to be appropriated to carry  
19          out—

20                 (A) the basic research program under  
21                 paragraph (4) \$50,000,000 for each of fiscal  
22                 years 2008 through 2017;

23                 (B) the applied research program under  
24                 paragraph (5) \$80,000,000 for each of fiscal  
25                 years 2008 through 2017; and;

1 (C) the energy storage research center pro-  
2 gram under paragraph (6) \$100,000,000 for  
3 each of fiscal years 2008 through 2017.

4 **SEC. 245. ADVANCED TRANSPORTATION TECHNOLOGY**  
5 **PROGRAM.**

6 (a) **ELECTRIC DRIVE VEHICLE DEMONSTRATION**  
7 **PROGRAM.**—

8 (1) **DEFINITION OF ELECTRIC DRIVE VEHI-**  
9 **CLE.**—In this subsection, the term “electric drive ve-  
10 hicle” means a precommercial vehicle that—

11 (A) draws motive power from a battery  
12 with at least 4 kilowatt-hours of electricity;

13 (B) can be recharged from an external  
14 source of electricity for motive power; and

15 (C) is a light-, medium-, or heavy-duty  
16 onroad or nonroad vehicle.

17 (2) **PROGRAM.**—The Secretary shall establish a  
18 competitive program to provide grants for dem-  
19 onstrations of electric drive vehicles.

20 (3) **ELIGIBILITY.**—A State government, local  
21 government, metropolitan transportation authority,  
22 air pollution control district, private entity, and non-  
23 profit entity shall be eligible to receive a grant under  
24 this subsection.

1           (4) PRIORITY.—In making grants under this  
2 subsection, the Secretary shall give priority to pro-  
3 posals that—

4                   (A) are likely to contribute to the commer-  
5 cialization and production of electric drive vehi-  
6 cles in the United States; and

7                   (B) reduce petroleum usage.

8           (5) SCOPE OF DEMONSTRATIONS.—The Sec-  
9 retary shall ensure, to the extent practicable, that  
10 the program established under this subsection in-  
11 cludes a variety of applications, manufacturers, and  
12 end-uses.

13           (6) REPORTING.—The Secretary shall require a  
14 grant recipient under this subsection to submit to  
15 the Secretary, on an annual basis, data relating to  
16 vehicle, performance, life cycle costs, and emissions  
17 of vehicles demonstrated under the grant, including  
18 emissions of greenhouse gases.

19           (7) COST SHARING.—Section 988 of the Energy  
20 Policy Act of 2005 (42 U.S.C. 16352) shall apply to  
21 a grant made under this subsection.

22           (8) AUTHORIZATIONS OF APPROPRIATIONS.—  
23 There are authorized to be appropriated to carry out  
24 this subsection \$60,000,000 for each of fiscal years  
25 2008 through 2012, of which not less than

1       \$20,000,000 shall be available each fiscal year only  
2       to make grants local and municipal governments.

3       (b) NEAR-TERM OIL SAVING TRANSPORTATION DE-  
4 PLOYMENT PROGRAM.—

5           (1) DEFINITION OF QUALIFIED TRANSPOR-  
6 TATION PROJECT.—In this subsection, the term  
7 “qualified transportation project” means—

8           (A) a project that simultaneously reduces  
9           emissions of criteria pollutants, greenhouse gas  
10          emissions, and petroleum usage by at least 40  
11          percent as compared to commercially available,  
12          petroleum-based technologies used in nonroad  
13          vehicles; and

14          (B) an electrification project involving  
15          onroad commercial trucks, rail transportation,  
16          or ships, and any associated infrastructure (in-  
17          cluding any panel upgrades, battery chargers,  
18          trenching, and alternative fuel infrastructure).

19          (2) PROGRAM.—Not later than 1 year after the  
20          date of enactment of this Act, the Secretary, in con-  
21          sultation with the Secretary of Transportation, shall  
22          establish a program to provide grants to eligible en-  
23          tities for the conduct of qualified transportation  
24          projects.

1           (3) PRIORITY.—In providing grants under this  
 2           subsection, the Secretary shall give priority to large-  
 3           scale projects and large-scale aggregators of  
 4           projects.

5           (4) COST SHARING.—Section 988 of the Energy  
 6           Policy Act of 2005 (42 U.S.C. 16352) shall apply to  
 7           a grant made under this subsection.

8           (5) AUTHORIZATION OF APPROPRIATIONS.—  
 9           There are authorized to carry this subsection  
 10          \$90,000,000 for each of fiscal years 2008 through  
 11          2013.

## 12                   **Subtitle D—Setting Energy** 13                   **Efficiency Goals**

### 14   **SEC. 251. NATIONAL GOALS FOR ENERGY SAVINGS IN** 15                   **TRANSPORTATION.**

16          (a) GOALS.—The goals of the United States are to  
 17          reduce gasoline usage in the United States from the levels  
 18          projected under subsection (b) by—

- 19                  (1) 20 percent by calendar year 2017;
- 20                  (2) 35 percent by calendar year 2025; and
- 21                  (3) 45 percent by calendar year 2030.

22          (b) MEASUREMENT.—For purposes of subsection (a),  
 23          reduction in gasoline usage shall be measured from the  
 24          estimates for each year in subsection (a) contained in the



1 reference case in the report of the Energy Information Ad-  
2 ministration entitled “Annual Energy Outlook 2007”.

3 (c) STRATEGIC PLAN.—

4 (1) IN GENERAL.—Not later than 1 year after  
5 the date of enactment of this Act, the Secretary, in  
6 cooperation with the Administrator of the Environ-  
7 mental Protection Agency and the heads of other ap-  
8 propriate Federal agencies, shall develop a strategic  
9 plan to achieve the national goals for reduction in  
10 gasoline usage established under subsection (a).

11 (2) PUBLIC INPUT AND COMMENT.—The Sec-  
12 retary shall develop the plan in a manner that pro-  
13 vides appropriate opportunities for public comment.

14 (d) PLAN CONTENTS.—The strategic plan shall—

15 (1) establish future regulatory, funding, and  
16 policy priorities to ensure compliance with the na-  
17 tional goals;

18 (2) include energy savings estimates for each  
19 sector; and

20 (3) include data collection methodologies and  
21 compilations used to establish baseline and energy  
22 savings data.

23 (e) PLAN UPDATES.—

24 (1) IN GENERAL.—The Secretary shall—

1 (A) update the strategic plan biennially;  
 2 and

3 (B) include the updated strategic plan in  
 4 the national energy policy plan required by sec-  
 5 tion 801 of the Department of Energy Organi-  
 6 zation Act (42 U.S.C. 7321).

7 (2) CONTENTS.—In updating the plan, the Sec-  
 8 retary shall—

9 (A) report on progress made toward imple-  
 10 menting efficiency policies to achieve the na-  
 11 tional goals established under subsection (a);  
 12 and

13 (B) to the maximum extent practicable,  
 14 verify energy savings resulting from the poli-  
 15 cies.

16 (f) REPORT TO CONGRESS AND PUBLIC.—The Sec-  
 17 retary shall submit to Congress, and make available to the  
 18 public, the initial strategic plan developed under sub-  
 19 section (c) and each updated plan.

20 **SEC. 252. NATIONAL ENERGY EFFICIENCY IMPROVEMENT**  
 21 **GOALS.**

22 (a) GOALS.—The goals of the United States are—  
 23 (1) to achieve an improvement in the overall en-  
 24 ergy productivity of the United States (measured in

gross domestic product per unit of energy input) of at least 2.5 percent per year by the year 2012; and

(2) to maintain that annual rate of improvement each year through 2030.

(b) STRATEGIC PLAN.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary, in cooperation with the Administrator of the Environmental Protection Agency and the heads of other appropriate Federal agencies, shall develop a strategic plan to achieve the national goals for improvement in energy productivity established under subsection (a).

(2) PUBLIC INPUT AND COMMENT.—The Secretary shall develop the plan in a manner that provides appropriate opportunities for public input and comment.

(c) PLAN CONTENTS.—The strategic plan shall—

(1) establish future regulatory, funding, and policy priorities to ensure compliance with the national goals;

(2) include energy savings estimates for each sector; and

1           (3) include data collection methodologies and  
2       compilations used to establish baseline and energy  
3       savings data.

4       (d) PLAN UPDATES.—

5           (1) IN GENERAL.—The Secretary shall—

6                (A) update the strategic plan biennially;  
7       and

8                (B) include the updated strategic plan in  
9       the national energy policy plan required by sec-  
10      tion 801 of the Department of Energy Organi-  
11      zation Act (42 U.S.C. 7321).

12          (2) CONTENTS.—In updating the plan, the Sec-  
13      retary shall—

14               (A) report on progress made toward imple-  
15      menting efficiency policies to achieve the na-  
16      tional goals established under subsection (a);  
17      and

18               (B) verify, to the maximum extent prac-  
19      ticable, energy savings resulting from the poli-  
20      cies.

21          (e) REPORT TO CONGRESS AND PUBLIC.—The Sec-  
22      retary shall submit to Congress, and make available to the  
23      public, the initial strategic plan developed under sub-  
24      section (b) and each updated plan.

1 **SEC. 253. NATIONAL MEDIA CAMPAIGN.**

2 (a) IN GENERAL.—The Secretary, acting through the  
3 Assistant Secretary for Energy Efficiency and Renewable  
4 Energy (referred to in this section as the “Secretary”),  
5 shall develop and conduct a national media campaign—

6 (1) to increase energy efficiency throughout the  
7 economy of the United States over the next decade;

8 (2) to promote the national security benefits as-  
9 sociated with increased energy efficiency; and

10 (3) to decrease oil consumption in the United  
11 States over the next decade.

12 (b) CONTRACT WITH ENTITY.—The Secretary shall  
13 carry out subsection (a) directly or through—

14 (1) competitively bid contracts with 1 or more  
15 nationally recognized media firms for the develop-  
16 ment and distribution of monthly television, radio,  
17 and newspaper public service announcements; or

18 (2) collective agreements with 1 or more nation-  
19 ally recognized institutes, businesses, or nonprofit  
20 organizations for the funding, development, and dis-  
21 tribution of monthly television, radio, and newspaper  
22 public service announcements.

23 (c) USE OF FUNDS.—

24 (1) IN GENERAL.—Amounts made available to  
25 carry out this section shall be used for the following:

26 (A) ADVERTISING COSTS.—

1 (i) The purchase of media time and  
2 space.

3 (ii) Creative and talent costs.

4 (iii) Testing and evaluation of adver-  
5 tising.

6 (iv) Evaluation of the effectiveness of  
7 the media campaign.

8 (B) ADMINISTRATIVE COSTS.—Operational  
9 and management expenses.

10 (2) LIMITATIONS.—In carrying out this section,  
11 the Secretary shall allocate not less than 85 percent  
12 of funds made available under subsection (e) for  
13 each fiscal year for the advertising functions speci-  
14 fied under paragraph (1)(A).

15 (d) REPORTS.—The Secretary shall annually submit  
16 to Congress a report that describes—

17 (1) the strategy of the national media campaign  
18 and whether specific objectives of the campaign were  
19 accomplished, including—

20 (A) determinations concerning the rate of  
21 change of energy consumption, in both absolute  
22 and per capita terms; and

23 (B) an evaluation that enables consider-  
24 ation whether the media campaign contributed  
25 to reduction of energy consumption;

1           (2) steps taken to ensure that the national  
2       media campaign operates in an effective and effi-  
3       cient manner consistent with the overall strategy  
4       and focus of the campaign;

5           (3) plans to purchase advertising time and  
6       space;

7           (4) policies and practices implemented to ensure  
8       that Federal funds are used responsibly to purchase  
9       advertising time and space and eliminate the poten-  
10      tial for waste, fraud, and abuse; and

11          (5) all contracts or cooperative agreements en-  
12      tered into with a corporation, partnership, or indi-  
13      vidual working on behalf of the national media cam-  
14      paign.

15      (e) AUTHORIZATION OF APPROPRIATIONS.—

16          (1) IN GENERAL.—There is authorized to be  
17      appropriated to carry out this section \$5,000,000 for  
18      each of fiscal years 2008 through 2012.

19          (2) DECREASED OIL CONSUMPTION.—The Sec-  
20      retary shall use not less than 50 percent of the  
21      amount that is made available under this section for  
22      each fiscal year to develop and conduct a national  
23      media campaign to decrease oil consumption in the  
24      United States over the next decade.

1 **SEC. 254. MODERNIZATION OF ELECTRICITY GRID SYSTEM.**

2 (a) STATEMENT OF POLICY.—It is the policy of the  
3 United States that developing and deploying advanced  
4 technology to modernize and increase the efficiency of the  
5 electricity grid system of the United States is essential to  
6 maintain a reliable and secure electricity transmission and  
7 distribution infrastructure that can meet future demand  
8 growth.

9 (b) PROGRAMS.—The Secretary, the Federal Energy  
10 Regulatory Commission, and other Federal agencies, as  
11 appropriate, shall carry out programs to support the use,  
12 development, and demonstration of advanced transmission  
13 and distribution technologies, including real-time moni-  
14 toring and analytical software—

15 (1) to maximize the capacity and efficiency of  
16 electricity networks;

17 (2) to enhance grid reliability;

18 (3) to reduce line losses;

19 (4) to facilitate the transition to real-time elec-  
20 tricity pricing;

21 (5) to allow grid incorporation of more onsite  
22 renewable energy generators;

23 (6) to enable electricity to displace a portion of  
24 the petroleum used to power the national transpor-  
25 tation system of the United States; and



1           (7) to enable broad deployment of distributed  
 2           generation and demand side management tech-  
 3           nology.

4       **Subtitle   E—Promoting   Federal**  
 5       **Leadership in Energy Efficiency**  
 6       **and Renewable Energy**

7       **SEC. 261. FEDERAL FLEET CONSERVATION REQUIRE-**  
 8               **MENTS.**

9           (a) FEDERAL FLEET CONSERVATION REQUIRE-  
 10       MENTS.—

11           (1) IN GENERAL.—Part J of title III of the En-  
 12           ergy Policy and Conservation Act (42 U.S.C. 6374  
 13           et seq.) is amended by adding at the end the fol-  
 14           lowing:

15       **“SEC. 400FF. FEDERAL FLEET CONSERVATION REQUIRE-**  
 16               **MENTS.**

17           “(a) MANDATORY REDUCTION IN PETROLEUM CON-  
 18       SUMPTION.—

19           “(1) IN GENERAL.—The Secretary shall issue  
 20           regulations (including provisions for waivers from  
 21           the requirements of this section) for Federal fleets  
 22           subject to section 400AA requiring that not later  
 23           than October 1, 2015, each Federal agency achieve  
 24           at least a 20 percent reduction in petroleum con-  
 25           sumption, and that each Federal agency increase al-

1       ternative fuel consumption by 10 percent annually,  
2       as calculated from the baseline established by the  
3       Secretary for fiscal year 2005.

4               “(2) PLAN.—

5                       “(A) REQUIREMENT.—The regulations  
6       shall require each Federal agency to develop a  
7       plan to meet the required petroleum reduction  
8       levels and the alternative fuel consumption in-  
9       creases.

10                      “(B) MEASURES.—The plan may allow an  
11       agency to meet the required petroleum reduc-  
12       tion level through—

13                               “(i) the use of alternative fuels;

14                               “(ii) the acquisition of vehicles with  
15       higher fuel economy, including hybrid vehi-  
16       cles, neighborhood electric vehicles, electric  
17       vehicles, and plug-in hybrid vehicles if the  
18       vehicles are commercially available;

19                               “(iii) the substitution of cars for light  
20       trucks;

21                               “(iv) an increase in vehicle load fac-  
22       tors;

23                               “(v) a decrease in vehicle miles trav-  
24       eled;

25                               “(vi) a decrease in fleet size; and

1 “(vii) other measures.

2 “(b) FEDERAL EMPLOYEE INCENTIVE PROGRAMS  
3 FOR REDUCING PETROLEUM CONSUMPTION.—

4 “(1) IN GENERAL.—Each Federal agency shall  
5 actively promote incentive programs that encourage  
6 Federal employees and contractors to reduce petro-  
7 leum usage through the use of practices such as—

8 “(A) telecommuting;

9 “(B) public transit;

10 “(C) carpooling; and

11 “(D) bicycling.

12 “(2) MONITORING AND SUPPORT FOR INCEN-  
13 TIVE PROGRAMS.—The Administrator of General  
14 Services, the Director of the Office of Personnel  
15 Management, and the Secretary of Energy shall  
16 monitor and provide appropriate support to agency  
17 programs described in paragraph (1).

18 “(3) RECOGNITION.—The Secretary may estab-  
19 lish a program under which the Secretary recognizes  
20 private sector employers and State and local govern-  
21 ments for outstanding programs to reduce petroleum  
22 usage through practices described in paragraph (1).

23 “(c) REPLACEMENT TIRES.—

24 “(1) IN GENERAL.—Except as provided in para-  
25 graph (2), the regulations issued under subsection

1 (a)(1) shall include a requirement that, to the max-  
 2 imum extent practicable, each Federal agency pur-  
 3 chase energy-efficient replacement tires for the re-  
 4 spective fleet vehicles of the agency.

5 “(2) EXCEPTIONS.—This section does not apply  
 6 to—

7 “(A) law enforcement motor vehicles;

8 “(B) emergency motor vehicles; or

9 “(C) motor vehicles acquired and used for  
 10 military purposes that the Secretary of Defense  
 11 has certified to the Secretary must be exempt  
 12 for national security reasons.

13 “(d) ANNUAL REPORTS ON COMPLIANCE.—The Sec-  
 14 retary shall submit to Congress an annual report that  
 15 summarizes actions taken by Federal agencies to comply  
 16 with this section.”.

17 (2) TABLE OF CONTENTS AMENDMENT.—The  
 18 table of contents of the Energy Policy and Conserva-  
 19 tion Act (42 U.S.C. prec. 6201) is amended by add-  
 20 ing at the end of the items relating to part J of title  
 21 III the following:

“Sec. 400FF. Federal fleet conservation requirements.”.

22 (b) AUTHORIZATION OF APPROPRIATIONS.—There is  
 23 authorized to be appropriated to carry out the amendment  
 24 made by this section \$10,000,000 for the period of fiscal  
 25 years 2008 through 2013.

1 **SEC. 262. FEDERAL REQUIREMENT TO PURCHASE ELEC-**  
2 **TRICITY GENERATED BY RENEWABLE EN-**  
3 **ERGY.**

4 Section 203 of the Energy Policy Act of 2005 (42  
5 U.S.C. 15852) is amended—

6 (1) by striking subsection (a) and inserting the  
7 following:

8 “(a) REQUIREMENT.—

9 “(1) IN GENERAL.—The President, acting  
10 through the Secretary, shall require that, to the ex-  
11 tent economically feasible and technically prac-  
12 ticable, of the total quantity of domestic electric en-  
13 ergy the Federal Government consumes during any  
14 fiscal year, the following percentages shall be renew-  
15 able energy from facilities placed in service after  
16 January 1, 1999:

17 “(A) Not less than 10 percent in fiscal  
18 year 2010.

19 “(B) Not less than 15 percent in fiscal  
20 year 2015.

21 “(2) CAPITOL COMPLEX.—The Architect of the  
22 Capitol, in consultation with the Secretary, shall en-  
23 sure that, of the total quantity of electric energy the  
24 Capitol complex consumes during any fiscal year, the  
25 percentages prescribed in paragraph (1) shall be re-  
26 newable energy.

1           “(3) WAIVER AUTHORITY.—The President may  
 2       reduce or waive the requirement under paragraph  
 3       (1) on a fiscal-year basis if the President determines  
 4       that complying with paragraph (1) for a fiscal year  
 5       would result in—

6           “(A) a negative impact on military training  
 7       or readiness activities conducted by the Depart-  
 8       ment of Defense;

9           “(B) a negative impact on domestic pre-  
 10      paredness activities conducted by the Depart-  
 11      ment of Homeland Security; or

12          “(C) a requirement that a Federal agency  
 13      provide emergency response services in the  
 14      event of a natural disaster or terrorist attack.”;  
 15      and

16      (2) by adding at the end the following:

17      “(e) CONTRACTS FOR RENEWABLE ENERGY FROM  
 18      PUBLIC UTILITY SERVICES.—Notwithstanding section  
 19      501(b)(1)(B) of title 40, United States Code, a contract  
 20      for renewable energy from a public utility service may be  
 21      made for a period of not more than 50 years.”.

22      **SEC. 263. ENERGY SAVINGS PERFORMANCE CONTRACTS.**

23      (a) RETENTION OF SAVINGS.—Section 546(c) of the  
 24      National Energy Conservation Policy Act (42 U.S.C.  
 25      8256(c)) is amended by striking paragraph (5).

1 (b) SUNSET AND REPORTING REQUIREMENTS.—Sec-  
2 tion 801 of the National Energy Conservation Policy Act  
3 (42 U.S.C. 8287) is amended by striking subsection (c).

4 (c) DEFINITION OF ENERGY SAVINGS.—Section  
5 804(2) of the National Energy Conservation Policy Act  
6 (42 U.S.C. 8287c(2)) is amended—

7 (1) by redesignating subparagraphs (A), (B),  
8 and (C) as clauses (i), (ii), and (iii), respectively,  
9 and indenting appropriately;

10 (2) by striking “means a reduction” and insert-  
11 ing “means—

12 “(A) a reduction”;

13 (3) by striking the period at the end and insert-  
14 ing a semicolon; and

15 (4) by adding at the end the following:

16 “(B) the increased efficient use of an exist-  
17 ing energy source by cogeneration or heat re-  
18 covery, and installation of renewable energy sys-  
19 tems;

20 “(C) if otherwise authorized by Federal or  
21 State law (including regulations), the sale or  
22 transfer of electrical or thermal energy gen-  
23 erated on-site from renewable energy sources or  
24 cogeneration, but in excess of Federal needs, to  
25 utilities or non-Federal energy users; and

1           “(D) the increased efficient use of existing  
2           water sources in interior or exterior applica-  
3           tions.”.

4           (d) NOTIFICATION.—

5           (1) AUTHORITY TO ENTER INTO CONTRACTS.—

6           Section 801(a)(2)(D) of the National Energy Con-  
7           servation Policy Act (42 U.S.C. 8287(a)(2)(D)) is  
8           amended—

9                   (A) in clause (ii), by inserting “and” after  
10           the semicolon at the end;

11                   (B) by striking clause (iii); and

12                   (C) by redesignating clause (iv) as clause  
13           (iii).

14           (2) REPORTS.—Section 548(a)(2) of the Na-  
15           tional Energy Conservation Policy Act (42 U.S.C.  
16           8258(a)(2)) is amended by inserting “and any ter-  
17           mination penalty exposure” after “the energy and  
18           cost savings that have resulted from such con-  
19           tracts”.

20           (3) CONFORMING AMENDMENT.—Section 2913  
21           of title 10, United States Code, is amended by strik-  
22           ing subsection (e).

23           (e) ENERGY AND COST SAVINGS IN NONBUILDING  
24           APPLICATIONS.—

25           (1) DEFINITIONS.—In this subsection:



1 (A) NONBUILDING APPLICATION.—The  
2 term “nonbuilding application” means—

3 (i) any class of vehicles, devices, or  
4 equipment that is transportable under the  
5 power of the applicable vehicle, device, or  
6 equipment by land, sea, or air and that  
7 consumes energy from any fuel source for  
8 the purpose of—

9 (I) that transportation; or

10 (II) maintaining a controlled en-  
11 vironment within the vehicle, device,  
12 or equipment; and

13 (ii) any federally-owned equipment  
14 used to generate electricity or transport  
15 water.

16 (B) SECONDARY SAVINGS.—

17 (i) IN GENERAL.—The term “sec-  
18 ondary savings” means additional energy  
19 or cost savings that are a direct con-  
20 sequence of the energy savings that result  
21 from the energy efficiency improvements  
22 that were financed and implemented pur-  
23 suant to an energy savings performance  
24 contract.

1 (ii) INCLUSIONS.—The term “sec-  
2 ondary savings” includes—

3 (I) energy and cost savings that  
4 result from a reduction in the need  
5 for fuel delivery and logistical support;

6 (II) personnel cost savings and  
7 environmental benefits; and

8 (III) in the case of electric gen-  
9 eration equipment, the benefits of in-  
10 creased efficiency in the production of  
11 electricity, including revenues received  
12 by the Federal Government from the  
13 sale of electricity so produced.

14 (2) STUDY.—

15 (A) IN GENERAL.—As soon as practicable  
16 after the date of enactment of this Act, the Sec-  
17 retary and the Secretary of Defense shall joint-  
18 ly conduct, and submit to Congress and the  
19 President a report of, a study of the potential  
20 for the use of energy savings performance con-  
21 tracts to reduce energy consumption and pro-  
22 vide energy and cost savings in nonbuilding ap-  
23 plications.

24 (B) REQUIREMENTS.—The study under  
25 this subsection shall include—

1 (i) an estimate of the potential energy  
 2 and cost savings to the Federal Govern-  
 3 ment, including secondary savings and  
 4 benefits, from increased efficiency in non-  
 5 building applications;

6 (ii) an assessment of the feasibility of  
 7 extending the use of energy savings per-  
 8 formance contracts to nonbuilding applica-  
 9 tions, including an identification of any  
 10 regulatory or statutory barriers to such  
 11 use; and

12 (iii) such recommendations as the  
 13 Secretary and Secretary of Defense deter-  
 14 mine to be appropriate.

15 **SEC. 264. ENERGY MANAGEMENT REQUIREMENTS FOR**  
 16 **FEDERAL BUILDINGS.**

17 Section 543(a)(1) of the National Energy Conserva-  
 18 tion Policy Act (42 U.S.C. 8253(a)(1)) is amended by  
 19 striking the table and inserting the following:

| <b>“Fiscal Year</b> | <b>Percentage reduction</b> |
|---------------------|-----------------------------|
| 2006 .....          | 2                           |
| 2007 .....          | 4                           |
| 2008 .....          | 9                           |
| 2009 .....          | 12                          |
| 2010 .....          | 15                          |
| 2011 .....          | 18                          |
| 2012 .....          | 21                          |
| 2013 .....          | 24                          |
| 2014 .....          | 27                          |
| 2015 .....          | 30.”.                       |

1 **SEC. 265. COMBINED HEAT AND POWER AND DISTRICT EN-**  
2 **ERGY INSTALLATIONS AT FEDERAL SITES.**

3 Section 543 of the National Energy Conservation  
4 Policy Act (42 U.S.C. 8253) is amended by adding at the  
5 end the following:

6 “(f) COMBINED HEAT AND POWER AND DISTRICT  
7 ENERGY INSTALLATIONS AT FEDERAL SITES.—

8 “(1) IN GENERAL.—Not later than 18 months  
9 after the date of enactment of this subsection, the  
10 Secretary, in consultation with the Administrator of  
11 General Services and the Secretary of Defense, shall  
12 identify Federal sites that could achieve significant  
13 cost-effective energy savings through the use of com-  
14 bined heat and power or district energy installations.

15 “(2) INFORMATION AND TECHNICAL ASSIST-  
16 ANCE.—The Secretary shall provide agencies with  
17 information and technical assistance that will enable  
18 the agencies to take advantage of the energy savings  
19 described in paragraph (1).

20 “(3) ENERGY PERFORMANCE REQUIRE-  
21 MENTS.—Any energy savings from the installations  
22 described in paragraph (1) may be applied to meet  
23 the energy performance requirements for an agency  
24 under subsection (a)(1).”.

1 **SEC. 266. FEDERAL BUILDING ENERGY EFFICIENCY PER-**  
2 **FORMANCE STANDARDS.**

3 Section 305(a)(3)(A) of the Energy Conservation and  
4 Production Act (42 U.S.C. 6834(a)(3)(A)) is amended—

5 (1) in the matter preceding clause (i), by strik-  
6 ing “this paragraph” and by inserting “the Energy  
7 Efficiency Promotion Act of 2007”; and

8 (2) in clause (i)—

9 (A) in subclause (I), by striking “and” at  
10 the end;

11 (B) by redesignating subclause (II) as sub-  
12 clause (III); and

13 (C) by inserting after subclause (I) the fol-  
14 lowing:

15 “(II) the buildings be designed, to the ex-  
16 tent economically feasible and technically prac-  
17 ticable, so that the fossil fuel-generated energy  
18 consumption of the buildings is reduced, as  
19 compared with the fossil fuel-generated energy  
20 consumption by a similar Federal building in  
21 fiscal year 2003 (as measured by Commercial  
22 Buildings Energy Consumption Survey or Resi-  
23 dential Energy Consumption Survey data from  
24 the Energy Information Agency), by the per-  
25 centage specified in the following table:

| <b>“Fiscal Year</b> | <b>Percentage reduction</b> |
|---------------------|-----------------------------|
| 2007 .....          | 50                          |
| 2010 .....          | 60                          |
| 2015 .....          | 70                          |
| 2020 .....          | 80                          |
| 2025 .....          | 90                          |
| 2030 .....          | 100;                        |

1           and”.

2   **SEC. 267. APPLICATION OF INTERNATIONAL ENERGY CON-**  
3                   **SERVATION CODE TO PUBLIC AND ASSISTED**  
4                   **HOUSING.**

5       Section 109 of the Cranston-Gonzalez National Af-  
6   fordable Housing Act (42 U.S.C. 12709) is amended—

7           (1) in subsection (a)(1)(C), by striking, “,  
8       where such standards are determined to be cost ef-  
9       fective by the Secretary of Housing and Urban De-  
10      velopment”;

11           (2) in subsection (a)(2)—

12                   (A) by striking “the Council of American  
13           Building Officials Model Energy Code, 1992”  
14           and inserting “2006 International Energy Con-  
15           servation Code”; and

16                   (B) by striking “, and, with respect to re-  
17           habilitation and new construction of public and  
18           assisted housing funded by HOPE VI revital-  
19           ization grants under section 24 of the United  
20           States Housing Act of 1937 (42 U.S.C. 1437v),  
21           the 2003 International Energy Conservation  
22           Code”;

1 (3) in subsection (b)—

2 (A) in the heading, by striking “MODEL  
3 ENERGY CODE.—” and inserting “INTER-  
4 NATIONAL ENERGY CONSERVATION CODE.—”;

5 (B) after “all new construction” in the  
6 first sentence insert “and rehabilitation”; and

7 (C) by striking “, and, with respect to re-  
8 habilitation and new construction of public and  
9 assisted housing funded by HOPE VI revital-  
10 ization grants under section 24 of the United  
11 States Housing Act of 1937 (42 U.S.C. 1437v),  
12 the 2003 International Energy Conservation  
13 Code”;

14 (4) in subsection (c)—

15 (A) in the heading, by striking “MODEL  
16 ENERGY CODE AND”; and

17 (B) by striking “, or, with respect to reha-  
18 bilitation and new construction of public and  
19 assisted housing funded by HOPE VI revital-  
20 ization grants under section 24 of the United  
21 States Housing Act of 1937 (42 U.S.C. 1437v),  
22 the 2003 International Energy Conservation  
23 Code”;

24 (5) by adding at the end the following:

1       “(d) FAILURE TO AMEND THE STANDARDS.—If the  
 2 Secretaries have not, within 1 year after the requirements  
 3 of the 2006 IECC or the ASHRAE Standard 90.1–2004  
 4 are revised, amended the standards or made a determina-  
 5 tion under subsection (c) of this section, and if the Sec-  
 6 retary of Energy has made a determination under section  
 7 304 of the Energy Conservation and Production Act (42  
 8 U.S.C. 6833) that the revised code or standard would im-  
 9 prove energy efficiency, all new construction and rehabili-  
 10 tation of housing specified in subsection (a) shall meet the  
 11 requirements of the revised code or standard.”;

12               (6) by striking “CABO Model Energy Code,  
 13 1992” each place it appears and inserting “the 2006  
 14 IECC”; and

15               (7) by striking “1989” each place it appears  
 16 and inserting “2004”.

17 **SEC. 268. ENERGY EFFICIENT COMMERCIAL BUILDINGS**  
 18 **INITIATIVE.**

19       (a) DEFINITIONS.—In this section:

20               (1) CONSORTIUM.—The term “consortium”  
 21 means a working group that is comprised of—

22                       (A) individuals representing—

23                               (i) 1 or more businesses engaged in—

24                                       (I) commercial building develop-  
 25 ment;



- 1 (II) construction; or
- 2 (III) real estate;
- 3 (ii) financial institutions;
- 4 (iii) academic or research institutions;
- 5 (iv) State or utility energy efficiency
- 6 programs;
- 7 (v) nongovernmental energy efficiency
- 8 organizations; and
- 9 (vi) the Federal Government;
- 10 (B) 1 or more building designers; and
- 11 (C) 1 or more individuals who own or oper-
- 12 ate 1 or more buildings.

13 (2) ENERGY EFFICIENT COMMERCIAL BUILD-  
 14 ING.—The term “energy efficient commercial build-  
 15 ing” means a commercial building that is designed,  
 16 constructed, and operated—

- 17 (A) to require a greatly reduced quantity
- 18 of energy;
- 19 (B) to meet, on an annual basis, the bal-
- 20 ance of energy needs of the commercial building
- 21 from renewable sources of energy; and
- 22 (C) to be economically viable.

23 (3) INITIATIVE.—The term “initiative” means  
 24 the Energy Efficient Commercial Buildings Initia-  
 25 tive.

1 (b) INITIATIVE.—

2 (1) IN GENERAL.—The Secretary shall enter  
3 into an agreement with the consortium to develop  
4 and carry out the initiative—

5 (A) to reduce the quantity of energy con-  
6 sumed by commercial buildings located in the  
7 United States; and

8 (B) to achieve the development of energy  
9 efficient commercial buildings in the United  
10 States.

11 (2) GOAL OF INITIATIVE.—The goal of the ini-  
12 tiative shall be to develop technologies and practices  
13 and implement policies that lead to energy efficient  
14 commercial buildings for—

15 (A) any commercial building newly con-  
16 structed in the United States by 2030;

17 (B) 50 percent of the commercial building  
18 stock of the United States by 2040; and

19 (C) all commercial buildings in the United  
20 States by 2050.

21 (3) COMPONENTS.—In carrying out the initia-  
22 tive, the Secretary, in collaboration with the consor-  
23 tium, may—

24 (A) conduct research and development on  
25 building design, materials, equipment and con-

1 trols, operation and other practices, integration,  
2 energy use measurement and benchmarking,  
3 and policies;

4 (B) conduct demonstration projects to  
5 evaluate replicable approaches to achieving en-  
6 ergy efficient commercial buildings for a variety  
7 of building types in a variety of climate zones;

8 (C) conduct deployment activities to dis-  
9 seminate information on, and encourage wide-  
10 spread adoption of, technologies, practices, and  
11 policies to achieve energy efficient commercial  
12 buildings; and

13 (D) conduct any other activity necessary to  
14 achieve any goal of the initiative, as determined  
15 by the Secretary, in collaboration with the con-  
16 sortium.

17 (c) AUTHORIZATION OF APPROPRIATIONS.—

18 (1) IN GENERAL.—There are authorized to be  
19 appropriated such sums as are necessary to carry  
20 out this section.

21 (2) ADDITIONAL FUNDING.—In addition to  
22 amounts authorized to be appropriated under para-  
23 graph (1), the Secretary may allocate funds from  
24 other appropriations to the initiative without chang-

1 ing the purpose for which the funds are appro-  
 2 priated.

3 **Subtitle F—Assisting State and**  
 4 **Local Governments in Energy**  
 5 **Efficiency**

6 **SEC. 271. WEATHERIZATION ASSISTANCE FOR LOW-INCOME**  
 7 **PERSONS.**

8 Section 422 of the Energy Conservation and Produc-  
 9 tion Act (42 U.S.C. 6872) is amended by striking  
 10 “\$700,000,000 for fiscal year 2008” and inserting  
 11 “\$750,000,000 for each of fiscal years 2008 through  
 12 2012”.

13 **SEC. 272. STATE ENERGY CONSERVATION PLANS.**

14 Section 365(f) of the Energy Policy and Conservation  
 15 Act (42 U.S.C. 6325(f)) is amended by striking “fiscal  
 16 year 2008” and inserting “each of fiscal years 2008  
 17 through 2012”.

18 **SEC. 273. UTILITY ENERGY EFFICIENCY PROGRAMS.**

19 (a) **ELECTRIC UTILITIES.**—Section 111(d) of the  
 20 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.  
 21 2621(d)) is amended by adding at the end the following:

22 “(16) **INTEGRATED RESOURCE PLANNING.**—

23 Each electric utility shall—

24 “(A) integrate energy efficiency resources  
 25 into utility, State, and regional plans; and

1           “(B) adopt policies establishing cost-effec-  
2           tive energy efficiency as a priority resource.

3           “(17) RATE DESIGN MODIFICATIONS TO PRO-  
4           MOTE ENERGY EFFICIENCY INVESTMENTS.—

5           “(A) IN GENERAL.—The rates allowed to  
6           be charged by any electric utility shall—

7                   “(i) align utility incentives with the  
8                   delivery of cost-effective energy efficiency;  
9                   and

10                   “(ii) promote energy efficiency invest-  
11                   ments.

12           “(B) POLICY OPTIONS.—In complying with  
13           subparagraph (A), each State regulatory au-  
14           thority and each nonregulated utility shall con-  
15           sider—

16                   “(i) removing the throughput incen-  
17                   tive and other regulatory and management  
18                   disincentives to energy efficiency;

19                   “(ii) providing utility incentives for  
20                   the successful management of energy effi-  
21                   ciency programs;

22                   “(iii) including the impact on adoption  
23                   of energy efficiency as 1 of the goals of re-  
24                   tail rate design, recognizing that energy ef-

1 efficiency must be balanced with other objec-  
2 tives;

3 “(iv) adopting rate designs that en-  
4 courage energy efficiency for each cus-  
5 tomer class; and

6 “(v) allowing timely recovery of en-  
7 ergy efficiency-related costs.”.

8 (b) NATURAL GAS UTILITIES.—Section 303(b) of the  
9 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.  
10 3203(b)) is amended by adding at the end the following:

11 “(5) ENERGY EFFICIENCY.—Each natural gas  
12 utility shall—

13 “(A) integrate energy efficiency resources  
14 into the plans and planning processes of the  
15 natural gas utility; and

16 “(B) adopt policies that establish energy  
17 efficiency as a priority resource in the plans  
18 and planning processes of the natural gas util-  
19 ity.

20 “(6) RATE DESIGN MODIFICATIONS TO PRO-  
21 MOTE ENERGY EFFICIENCY INVESTMENTS.—

22 “(A) IN GENERAL.—The rates allowed to  
23 be charged by a natural gas utility shall align  
24 utility incentives with the deployment of cost-ef-  
25 fective energy efficiency.

“(B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

“(i) separating fixed-cost revenue recovery from the volume of transportation or sales service provided to the customer;

“(ii) providing to utilities incentives for the successful management of energy efficiency programs, such as allowing utilities to retain a portion of the cost-reducing benefits accruing from the programs;

“(iii) promoting the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives; and

“(iv) adopting rate designs that encourage energy efficiency for each customer class.”.

**SEC. 274. ENERGY EFFICIENCY AND DEMAND RESPONSE  
PROGRAM ASSISTANCE.**

The Secretary shall provide technical assistance regarding the design and implementation of the energy efficiency and demand response programs established under

1 this title, and the amendments made by this title, to State  
 2 energy offices, public utility regulatory commissions, and  
 3 nonregulated utilities through the appropriate national  
 4 laboratories of the Department of Energy.

5 **SEC. 275. ENERGY AND ENVIRONMENTAL BLOCK GRANT.**

6 Title I of the Housing and Community Development  
 7 Act of 1974 (42 U.S.C. 5301 et seq.) is amended by add-  
 8 ing at the end the following:

9 **“SEC. 123. ENERGY AND ENVIRONMENTAL BLOCK GRANT.**

10 “(a) DEFINITIONS.—In this section

11 “(1) ELIGIBLE ENTITY.—The term ‘eligible en-  
 12 tity’ means—

13 “(A) a State;

14 “(B) an eligible unit of local government  
 15 within a State; and

16 “(C) an Indian tribe.

17 “(2) ELIGIBLE UNIT OF LOCAL GOVERN-  
 18 MENT.—The term ‘eligible unit of local government’  
 19 means—

20 “(A) a city with a population—

21 “(i) of at least 35,000; or

22 “(ii) that causes the city to be 1 of  
 23 the top 10 most populous cities of the  
 24 State in which the city is located; and

25 “(B) a county with a population—



1 “(i) of at least 200,000; or

2 “(ii) that causes the county to be 1 of  
3 the top 10 most populous counties of the  
4 State in which the county is located.

5 “(3) SECRETARY.—The term ‘Secretary’ means  
6 the Secretary of Energy.

7 “(4) STATE.—The term ‘State’ means—

8 “(A) a State;

9 “(B) the District of Columbia;

10 “(C) the Commonwealth of Puerto Rico;

11 and

12 “(D) any other territory or possession of  
13 the United States.

14 “(b) PURPOSE.—The purpose of this section is to as-  
15 sist State and local governments in implementing strate-  
16 gies—

17 “(1) to reduce fossil fuel emissions created as  
18 a result of activities within the boundaries of the  
19 States or units of local government;

20 “(2) to reduce the total energy use of the  
21 States and units of local government; and

22 “(3) to improve energy efficiency in the trans-  
23 portation sector, building sector, and any other ap-  
24 propriate sectors.

25 “(c) PROGRAM.—

1           “(1) IN GENERAL.—The Secretary shall provide  
2           to eligible entities block grants to carry out eligible  
3           activities (as specified under paragraph (2)) relating  
4           to the implementation of environmentally beneficial  
5           energy strategies.

6           “(2) ELIGIBLE ACTIVITIES.—The Secretary, in  
7           consultation with the Administrator of the Environ-  
8           mental Protection Agency, the Secretary of Trans-  
9           portation, and the Secretary of Housing and Urban  
10          Development, shall establish a list of activities that  
11          are eligible for assistance under the grant program.

12          “(3) ALLOCATION TO STATES AND ELIGIBLE  
13          UNITS OF LOCAL GOVERNMENT.—

14               “(A) IN GENERAL.—Of the amounts made  
15               available to provide grants under this sub-  
16               section, the Secretary shall allocate—

17                     “(i) 70 percent to eligible units of  
18                     local government; and

19                     “(ii) 30 percent to States.

20          “(B) DISTRIBUTION TO ELIGIBLE UNITS  
21          OF LOCAL GOVERNMENT.—

22               “(i) IN GENERAL.—The Secretary  
23               shall establish a formula for the distribu-  
24               tion of amounts under subparagraph (A)(i)  
25               to eligible units of local government, taking

1 into account any factors that the Secretary  
2 determines to be appropriate, including the  
3 residential and daytime population of the  
4 eligible units of local government.

5 “(ii) CRITERIA.—Amounts shall be  
6 distributed to eligible units of local govern-  
7 ment under clause (i) only if the eligible  
8 units of local government meet the criteria  
9 for distribution established by the Sec-  
10 retary for units of local government.

11 “(C) DISTRIBUTION TO STATES.—

12 “(i) IN GENERAL.—Of the amounts  
13 provided to States under subparagraph  
14 (A)(ii), the Secretary shall distribute—

15 “(I) at least 1.25 percent to each

16 State; and

17 “(II) the remainder among the  
18 States, based on a formula, to be de-  
19 termined by the Secretary, that takes  
20 into account the population of the  
21 States and any other criteria that the  
22 Secretary determines to be appro-  
23 priate.

24 “(ii) CRITERIA.—Amounts shall be  
25 distributed to States under clause (i) only

1 if the States meet the criteria for distribu-  
 2 tion established by the Secretary for  
 3 States.

4 “(iii) LIMITATION ON USE OF STATE  
 5 FUNDS.—At least 40 percent of the  
 6 amounts distributed to States under this  
 7 subparagraph shall be used by the States  
 8 for the conduct of eligible activities in non-  
 9 entitlement areas in the States, in accord-  
 10 ance with any criteria established by the  
 11 Secretary.

12 “(4) REPORT.—Not later than 2 years after the  
 13 date on which an eligible entity first receives a grant  
 14 under this section, and every 2 years thereafter, the  
 15 eligible entity shall submit to the Secretary a report  
 16 that describes any eligible activities carried out using  
 17 assistance provided under this subsection.

18 “(5) AUTHORIZATION OF APPROPRIATIONS.—  
 19 There are authorized to be appropriated such sums  
 20 as are necessary to carry out this subsection for  
 21 each of fiscal years 2008 through 2012.

22 “(d) ENVIRONMENTALLY BENEFICIAL ENERGY  
 23 STRATEGIES SUPPLEMENTAL GRANT PROGRAM.—

24 “(1) IN GENERAL.—The Secretary shall provide  
 25 to each eligible entity that meets the applicable cri-

1       teria under subparagraph (B)(ii) or (C)(ii) of sub-  
2       section (c)(3) a supplemental grant to pay the Fed-  
3       eral share of the total costs of carrying out an activ-  
4       ity relating to the implementation of an environ-  
5       mentally beneficial energy strategy.

6               “(2) REQUIREMENTS.—To be eligible for a  
7       grant under paragraph (1), an eligible entity shall—

8               “(A) demonstrate to the satisfaction of the  
9       Secretary that the eligible entity meets the ap-  
10      plicable criteria under subparagraph (B)(ii) or  
11      (C)(ii) of subsection (c)(3); and

12              “(B) submit to the Secretary for approval  
13      a plan that describes the activities to be funded  
14      by the grant.

15              “(3) COST-SHARING REQUIREMENT.—

16              “(A) FEDERAL SHARE.—The Federal  
17      share of the cost of carrying out any activities  
18      under this subsection shall be 75 percent.

19              “(B) NON-FEDERAL SHARE.—

20              “(i) FORM.—Not more than 50 per-  
21      cent of the non-Federal share may be in  
22      the form of in-kind contributions.

23              “(ii) LIMITATION.—Amounts provided  
24      to an eligible entity under subsection (c)

1                   shall not be used toward the non-Federal  
2                   share.

3                   “(4) MAINTENANCE OF EFFORT.—An eligible  
4                   entity shall provide assurances to the Secretary that  
5                   funds provided to the eligible entity under this sub-  
6                   section will be used only to supplement, not to sup-  
7                   plant, the amount of Federal, State, and local funds  
8                   otherwise expended by the eligible entity for eligible  
9                   activities under this subsection.

10                  “(5) AUTHORIZATION OF APPROPRIATIONS.—  
11                  There are authorized to be appropriated such sums  
12                  as are necessary to carry out this subsection for  
13                  each of fiscal years 2008 through 2012.

14                  “(e) GRANTS TO OTHER STATES AND COMMU-  
15                  NITIES.—

16                  “(1) IN GENERAL.—Of the total amount of  
17                  funds that are made available each fiscal year to  
18                  carry out this section, the Secretary shall use 2 per-  
19                  cent of the amount to make competitive grants  
20                  under this section to States and units of local gov-  
21                  ernment that are not eligible entities or to consortia  
22                  of such units of local government.

23                  “(2) APPLICATIONS.—To be eligible for a grant  
24                  under this subsection, a State, unit of local govern-  
25                  ment, or consortia described in paragraph (1) shall

1       apply to the Secretary for a grant to carry out an  
 2       activity that would otherwise be eligible for a grant  
 3       under subsection (c) or (d).

4               “(3) PRIORITY.—In awarding grants under this  
 5       subsection, the Secretary shall give priority to—

6                       “(A) States with populations of less than  
 7               2,000,000; and

8                       “(B) projects that would result in signifi-  
 9               cant energy efficiency improvements, reductions  
 10              in fossil fuel use, or capital improvements.”.

11 **SEC. 276. ENERGY SUSTAINABILITY AND EFFICIENCY**  
 12                       **GRANTS FOR INSTITUTIONS OF HIGHER EDU-**  
 13                       **CATION.**

14       Part G of title III of the Energy Policy and Conserva-  
 15       tion Act is amended by inserting after section 399 (42  
 16       U.S.C. 371h) the following:

17 **“SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY**  
 18                       **GRANTS FOR INSTITUTIONS OF HIGHER EDU-**  
 19                       **CATION.**

20       “(a) DEFINITIONS.—In this section:

21               “(1) ENERGY SUSTAINABILITY.—The term ‘en-  
 22       ergy sustainability’ includes using a renewable en-  
 23       ergy resource and a highly efficient technology for  
 24       electricity generation, transportation, heating, or  
 25       cooling.

1           “(2) INSTITUTION OF HIGHER EDUCATION.—

2           The term ‘institution of higher education’ has the  
3           meaning given the term in section 2 of the Energy  
4           Policy Act of 2005 (42 U.S.C. 15801).

5           “(b) GRANTS FOR ENERGY EFFICIENCY IMPROVE-  
6           MENT.—

7           “(1) IN GENERAL.—The Secretary shall award  
8           not more than 100 grants to institutions of higher  
9           education to carry out projects to improve energy ef-  
10          ficiency on the grounds and facilities of the institu-  
11          tion of higher education, including not less than 1  
12          grant to an institution of higher education in each  
13          State.

14          “(2) CONDITION.—As a condition of receiving a  
15          grant under this subsection, an institution of higher  
16          education shall agree to—

17               “(A) implement a public awareness cam-  
18               paign concerning the project in the community  
19               in which the institution of higher education is  
20               located; and

21               “(B) submit to the Secretary, and make  
22               available to the public, reports on any efficiency  
23               improvements, energy cost savings, and environ-  
24               mental benefits achieved as part of a project  
25               carried out under paragraph (1).



1       “(c) GRANTS FOR INNOVATION IN ENERGY SUSTAIN-  
2 ABILITY.—

3               “(1) IN GENERAL.—The Secretary shall award  
4 not more than 250 grants to institutions of higher  
5 education to engage in innovative energy sustain-  
6 ability projects, including not less than 2 grants to  
7 institutions of higher education in each State.

8               “(2) INNOVATION PROJECTS.—An innovation  
9 project carried out with a grant under this sub-  
10 section shall—

11                       “(A) involve—

12                               “(i) an innovative technology that is  
13 not yet commercially available; or

14                               “(ii) available technology in an inno-  
15 vative application that maximizes energy  
16 efficiency and sustainability;

17                       “(B) have the greatest potential for testing  
18 or demonstrating new technologies or processes;  
19 and

20                       “(C) ensure active student participation in  
21 the project, including the planning, implementa-  
22 tion, evaluation, and other phases of the  
23 project.

24               “(3) CONDITION.—As a condition of receiving a  
25 grant under this subsection, an institution of higher

1 education shall agree to submit to the Secretary,  
2 and make available to the public, reports that de-  
3 scribe the results of the projects carried out under  
4 paragraph (1).

5 “(d) AWARDING OF GRANTS.—

6 “(1) APPLICATION.—An institution of higher  
7 education that seeks to receive a grant under this  
8 section may submit to the Secretary an application  
9 for the grant at such time, in such form, and con-  
10 taining such information as the Secretary may pre-  
11 scribe.

12 “(2) SELECTION.—The Secretary shall estab-  
13 lish a committee to assist in the selection of grant  
14 recipients under this section.

15 “(e) ALLOCATION TO INSTITUTIONS OF HIGHER  
16 EDUCATION WITH SMALL ENDOWMENTS.—Of the  
17 amount of grants provided for a fiscal year under this sec-  
18 tion, the Secretary shall provide not less 50 percent of the  
19 amount to institutions of higher education that have an  
20 endowment of not more than \$100,000,000, with 50 per-  
21 cent of the allocation set aside for institutions of higher  
22 education that have an endowment of not more than  
23 \$50,000,000.

24 “(f) GRANT AMOUNTS.—The maximum amount of  
25 grants for a project under this section shall not exceed—

1 “(1) in the case of grants for energy efficiency  
2 improvement under subsection (b), \$1,000,000; or

3 “(2) in the case of grants for innovation in en-  
4 ergy sustainability under subsection (c), \$500,000.

5 “(g) AUTHORIZATION OF APPROPRIATIONS.—There  
6 are authorized to be appropriated such sums as are nec-  
7 essary to carry out this section for each of fiscal years  
8 2008 through 2012.”.

9 **SEC. 277. WORKFORCE TRAINING.**

10 Section 1101 of the Energy Policy Act of 2005 (42  
11 U.S.C. 16411) is amended—

12 (1) by redesignating subsection (d) as sub-  
13 section (e); and

14 (2) by inserting after subsection (c) the fol-  
15 lowing:

16 “(d) WORKFORCE TRAINING.—

17 “(1) IN GENERAL.—The Secretary, in coopera-  
18 tion with the Secretary of Labor, shall promulgate  
19 regulations to implement a program to provide work-  
20 force training to meet the high demand for workers  
21 skilled in the energy efficiency and renewable energy  
22 industries.

23 “(2) CONSULTATION.—In carrying out this sub-  
24 section, the Secretary shall consult with representa-  
25 tives of the energy efficiency and renewable energy

1 industries concerning skills that are needed in those  
2 industries.”.

3 **SEC. 278. ASSISTANCE TO STATES TO REDUCE SCHOOL BUS**  
4 **IDLING.**

5 (a) STATEMENT OF POLICY.—Congress encourages  
6 each local educational agency (as defined in section  
7 9101(26) of the Elementary and Secondary Education Act  
8 of 1965 (20 U.S.C. 7801(26))) that receives Federal funds  
9 under the Elementary and Secondary Education Act of  
10 1965 (20 U.S.C. 6301 et seq.) to develop a policy to re-  
11 duce the incidence of school bus idling at schools while  
12 picking up and unloading students.

13 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
14 are authorized to be appropriated to the Secretary, work-  
15 ing in coordination with the Secretary of Education,  
16 \$5,000,000 for each of fiscal years 2007 through 2012  
17 for use in educating States and local education agencies  
18 about—

- 19 (1) benefits of reducing school bus idling; and  
20 (2) ways in which school bus idling may be re-  
21 duced.

1 **TITLE III—CARBON CAPTURE**  
2 **AND STORAGE RESEARCH,**  
3 **DEVELOPMENT, AND DEM-**  
4 **ONSTRATION**

5 **SEC. 301. SHORT TITLE.**

6 This title may be cited as the “Carbon Capture and  
7 Sequestration Act of 2007”.

8 **SEC. 302. CARBON CAPTURE AND STORAGE RESEARCH, DE-**  
9 **VELOPMENT, AND DEMONSTRATION PRO-**  
10 **GRAM.**

11 Section 963 of the Energy Policy Act of 2005 (42  
12 U.S.C. 16293) is amended—

13 (1) in the section heading, by striking “**RE-**  
14 **SEARCH AND DEVELOPMENT**” and inserting  
15 “**AND STORAGE RESEARCH, DEVELOPMENT,**  
16 **AND DEMONSTRATION**”;

17 (2) in subsection (a)—

18 (A) by striking “research and develop-  
19 ment” and inserting “and storage research, de-  
20 velopment, and demonstration”; and

21 (B) by striking “capture technologies on  
22 combustion-based systems” and inserting “cap-  
23 ture and storage technologies related to energy  
24 systems”;

25 (3) in subsection (b)—

1 (A) in paragraph (3), by striking “and” at  
2 the end;

3 (B) in paragraph (4), by striking the pe-  
4 riod at the end and inserting “; and”; and

5 (C) by adding at the end the following:

6 “(5) to expedite and carry out large-scale test-  
7 ing of carbon sequestration systems in a range of ge-  
8 ological formations that will provide information on  
9 the cost and feasibility of deployment of sequestra-  
10 tion technologies.”; and

11 (4) by striking subsection (c) and inserting the  
12 following:

13 “(c) PROGRAMMATIC ACTIVITIES.—

14 “(1) ENERGY RESEARCH AND DEVELOPMENT  
15 UNDERLYING CARBON CAPTURE AND STORAGE  
16 TECHNOLOGIES AND CARBON USE ACTIVITIES.—

17 “(A) IN GENERAL.—The Secretary shall  
18 carry out fundamental science and engineering  
19 research (including laboratory-scale experi-  
20 ments, numeric modeling, and simulations) to  
21 develop and document the performance of new  
22 approaches to capture and store, recycle, or  
23 reuse carbon dioxide.

24 “(B) PROGRAM INTEGRATION.—The Sec-  
25 retary shall ensure that fundamental research

1 carried out under this paragraph is appro-  
2 priately applied to energy technology develop-  
3 ment activities, the field testing of carbon se-  
4 questration, and carbon use activities, includ-  
5 ing—

6 “(i) development of new or improved  
7 technologies for the capture of carbon diox-  
8 ide;

9 “(ii) development of new or improved  
10 technologies that reduce the cost and in-  
11 crease the efficacy of the compression of  
12 carbon dioxide required for the storage of  
13 carbon dioxide;

14 “(iii) modeling and simulation of geo-  
15 logical sequestration field demonstrations;

16 “(iv) quantitative assessment of risks  
17 relating to specific field sites for testing of  
18 sequestration technologies; and

19 “(v) research and development of new  
20 and improved technologies for carbon use,  
21 including recycling and reuse of carbon di-  
22 oxide.

23 “(2) CARBON CAPTURE DEMONSTRATION

24 PROJECT.—

1           “(A) IN GENERAL.—The Secretary shall  
2           carry out a demonstration of large-scale carbon  
3           dioxide capture from an appropriate gasification  
4           facility selected by the Secretary.

5           “(B) LINK TO STORAGE ACTIVITIES.—The  
6           Secretary may require the use of carbon dioxide  
7           from the project carried out under subpara-  
8           graph (A) in a field testing validation activity  
9           under this section.

10          “(3) FIELD VALIDATION TESTING ACTIVI-  
11          TIES.—

12               “(A) IN GENERAL.—The Secretary shall  
13               promote, to the maximum extent practicable,  
14               regional carbon sequestration partnerships to  
15               conduct geologic sequestration tests involving  
16               carbon dioxide injection and monitoring, mitiga-  
17               tion, and verification operations in a variety of  
18               candidate geological settings, including—

19                       “(i) operating oil and gas fields;

20                       “(ii) depleted oil and gas fields;

21                       “(iii) unmineable coal seams;

22                       “(iv) deep saline formations;

23                       “(v) deep geological systems that may  
24               be used as engineered reservoirs to extract  
25               economical quantities of heat from geo-



1 thermal resources of low permeability or  
2 porosity; and

3 “(vi) deep geologic systems containing  
4 basalt formations.

5 “(B) OBJECTIVES.—The objectives of tests  
6 conducted under this paragraph shall be—

7 “(i) to develop and validate geo-  
8 physical tools, analysis, and modeling to  
9 monitor, predict, and verify carbon dioxide  
10 containment;

11 “(ii) to validate modeling of geological  
12 formations;

13 “(iii) to refine storage capacity esti-  
14 mated for particular geological formations;

15 “(iv) to determine the fate of carbon  
16 dioxide concurrent with and following in-  
17 jection into geological formations;

18 “(v) to develop and implement best  
19 practices for operations relating to, and  
20 monitoring of, injection and storage of car-  
21 bon dioxide in geologic formations;

22 “(vi) to assess and ensure the safety  
23 of operations related to geological storage  
24 of carbon dioxide; and

1 “(vii) to allow the Secretary to pro-  
2 mulgate policies, procedures, requirements,  
3 and guidance to ensure that the objectives  
4 of this subparagraph are met in large-scale  
5 testing and deployment activities for car-  
6 bon capture and storage that are funded  
7 by the Department of Energy.

8 “(4) LARGE-SCALE TESTING AND DEPLOY-  
9 MENT.—

10 “(A) IN GENERAL.—The Secretary shall  
11 conduct not less than 7 initial large-volume se-  
12 questration tests for geological containment of  
13 carbon dioxide (at least 1 of which shall be  
14 international in scope) to validate information  
15 on the cost and feasibility of commercial deploy-  
16 ment of technologies for geological containment  
17 of carbon dioxide.

18 “(B) DIVERSITY OF FORMATIONS TO BE  
19 STUDIED.—In selecting formations for study  
20 under this paragraph, the Secretary shall con-  
21 sider a variety of geological formations across  
22 the United States, and require characterization  
23 and modeling of candidate formations, as deter-  
24 mined by the Secretary.

1           “(5) PREFERENCE IN PROJECT SELECTION  
2 FROM MERITORIOUS PROPOSALS.—In making com-  
3 petitive awards under this subsection, subject to the  
4 requirements of section 989, the Secretary shall give  
5 preference to proposals from partnerships among in-  
6 dustrial, academic, and government entities.

7           “(6) COST SHARING.—Activities under this sub-  
8 section shall be considered research and development  
9 activities that are subject to the cost-sharing re-  
10 quirements of section 988(b).

11           “(7) PROGRAM REVIEW AND REPORT.—During  
12 fiscal year 2011, the Secretary shall—

13                   “(A) conduct a review of programmatic ac-  
14 tivities carried out under this subsection; and

15                   “(B) make recommendations with respect  
16 to continuation of the activities.

17           “(d) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to carry out this sec-  
19 tion—

20                   “(1) \$150,000,000 for fiscal year 2008;

21                   “(2) \$200,000,000 for fiscal year 2009;

22                   “(3) \$200,000,000 for fiscal year 2010;

23                   “(4) \$180,000,000 for fiscal year 2011; and

24                   “(5) \$165,000,000 for fiscal year 2012.”.

1 **SEC. 303. CARBON DIOXIDE STORAGE CAPACITY ASSESS-**  
2 **MENT.**

3 (a) DEFINITIONS.—In this section

4 (1) ASSESSMENT.—The term “assessment”  
5 means the national assessment of capacity for car-  
6 bon dioxide completed under subsection (f).

7 (2) CAPACITY.—The term “capacity” means the  
8 portion of a storage formation that can retain car-  
9 bon dioxide in accordance with the requirements (in-  
10 cluding physical, geological, and economic require-  
11 ments) established under the methodology developed  
12 under subsection (b).

13 (3) ENGINEERED HAZARD.—The term “engi-  
14 neered hazard” includes the location and completion  
15 history of any well that could affect potential stor-  
16 age.

17 (4) RISK.—The term “risk” includes any risk  
18 posed by geomechanical, geochemical,  
19 hydrogeological, structural, and engineered hazards.

20 (5) SECRETARY.—The term “Secretary” means  
21 the Secretary of the Interior, acting through the Di-  
22 rector of the United States Geological Survey.

23 (6) STORAGE FORMATION.—The term “storage  
24 formation” means a deep saline formation,  
25 unmineable coal seam, or oil or gas reservoir that is

1 capable of accommodating a volume of industrial  
2 carbon dioxide.

3 (b) METHODOLOGY.—Not later than 1 year after the  
4 date of enactment of this Act, the Secretary shall develop  
5 a methodology for conducting an assessment under sub-  
6 section (f), taking into consideration—

7 (1) the geographical extent of all potential stor-  
8 age formations in all States;

9 (2) the capacity of the potential storage forma-  
10 tions;

11 (3) the injectivity of the potential storage for-  
12 mations;

13 (4) an estimate of potential volumes of oil and  
14 gas recoverable by injection and storage of industrial  
15 carbon dioxide in potential storage formations;

16 (5) the risk associated with the potential stor-  
17 age formations; and

18 (6) the Carbon Sequestration Atlas of the  
19 United States and Canada that was completed by  
20 the Department of Energy in April 2006.

21 (c) COORDINATION.—

22 (1) FEDERAL COORDINATION.—

23 (A) CONSULTATION.—The Secretary shall  
24 consult with the Secretary of Energy and the  
25 Administrator of the Environmental Protection

1           Agency on issues of data sharing, format, devel-  
2           opment of the methodology, and content of the  
3           assessment required under this title to ensure  
4           the maximum usefulness and success of the as-  
5           sessment.

6                   (B) COOPERATION.—The Secretary of En-  
7           ergy and the Administrator shall cooperate with  
8           the Secretary to ensure, to the maximum extent  
9           practicable, the usefulness and success of the  
10          assessment.

11                  (2) STATE COORDINATION.—The Secretary  
12          shall consult with State geological surveys and other  
13          relevant entities to ensure, to the maximum extent  
14          practicable, the usefulness and success of the assess-  
15          ment.

16                  (d) EXTERNAL REVIEW AND PUBLICATION.—On  
17          completion of the methodology under subsection (b), the  
18          Secretary shall—

19                   (1) publish the methodology and solicit com-  
20                  ments from the public and the heads of affected  
21                  Federal and State agencies;

22                   (2) establish a panel of individuals with exper-  
23                  tise in the matters described in paragraphs (1)  
24                  through (5) of subsection (b) composed, as appro-  
25                  priate, of representatives of Federal agencies, insti-

1       tutions of higher education, nongovernmental organi-  
2       zations, State organizations, industry, and inter-  
3       national geoscience organizations to review the  
4       methodology and comments received under para-  
5       graph (1); and

6               (3) on completion of the review under para-  
7       graph (2), publish in the Federal Register the re-  
8       vised final methodology.

9       (e) PERIODIC UPDATES.—The methodology devel-  
10      oped under this section shall be updated periodically (in-  
11      cluding at least once every 5 years) to incorporate new  
12      data as the data becomes available.

13      (f) NATIONAL ASSESSMENT.—

14              (1) IN GENERAL.—Not later than 2 years after  
15      the date of publication of the methodology under  
16      subsection (d)(1), the Secretary, in consultation with  
17      the Secretary of Energy and State geological sur-  
18      veys, shall complete a national assessment of capac-  
19      ity for carbon dioxide in accordance with the meth-  
20      odology.

21              (2) GEOLOGICAL VERIFICATION.—As part of  
22      the assessment under this subsection, the Secretary  
23      shall carry out a drilling program to supplement the  
24      geological data relevant to determining storage ca-

1 capacity of carbon dioxide in geological storage forma-  
2 tions, including—

3 (A) well log data;

4 (B) core data; and

5 (C) fluid sample data.

6 (3) PARTNERSHIP WITH OTHER DRILLING PRO-  
7 GRAMS.—As part of the drilling program under  
8 paragraph (2), the Secretary shall enter, as appro-  
9 priate, into partnerships with other entities to collect  
10 and integrate data from other drilling programs rel-  
11 evant to the storage of carbon dioxide in geologic  
12 formations.

13 (4) INCORPORATION INTO NATCARB.—

14 (A) IN GENERAL.—On completion of the  
15 assessment, the Secretary of Energy shall incor-  
16 porate the results of the assessment using the  
17 NatCarb database, to the maximum extent  
18 practicable.

19 (B) RANKING.—The database shall include  
20 the data necessary to rank potential storage  
21 sites for capacity and risk, across the United  
22 States, within each State, by formation, and  
23 within each basin.

24 (5) REPORT.—Not later than 180 days after  
25 the date on which the assessment is completed, the



1 Secretary shall submit to the Committee on Energy  
2 and Natural Resources of the Senate and the Com-  
3 mittee on Science and Technology of the House of  
4 Representatives a report describing the findings  
5 under the assessment.

6 (6) PERIODIC UPDATES.—The national assess-  
7 ment developed under this section shall be updated  
8 periodically (including at least once every 5 years) to  
9 support public and private sector decisionmaking.

10 (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
11 authorized to be appropriated to carry out this section  
12 \$30,000,000 for the period of fiscal years 2008 through  
13 2012.

14 **SEC. 304. CARBON CAPTURE AND STORAGE INITIATIVE.**

15 (a) INDUSTRIAL SOURCES OF CARBON DIOXIDE DE-  
16 FINED.—In this section, the term “industrial sources of  
17 carbon dioxide” means one or more facilities to—

- 18 (1) generate electric energy from fossil fuels;
- 19 (2) refine petroleum;
- 20 (3) manufacture iron or steel;
- 21 (4) manufacture cement or cement clinker;
- 22 (5) manufacture commodity chemicals (includ-  
23 ing from coal gasification); or
- 24 (6) manufacture transportation fuels from coal.

25 (b) PROGRAM ESTABLISHMENT.—

1           (1) IN GENERAL.—The Secretary shall carry  
2           out a program to demonstrate technologies for the  
3           large-scale capture of carbon dioxide from industrial  
4           sources of carbon dioxide.

5           (2) SCOPE OF AWARD.—An award under this  
6           section shall be only for the portion of the project  
7           that carries out the large-scale capture (including  
8           purification and compression) of carbon dioxide, as  
9           well as the cost of transportation and injection of  
10          carbon dioxide.

11          (3) QUALIFICATIONS FOR AWARD.—To be eligi-  
12          ble for an award under this section, a project pro-  
13          posal must include the following:

14                (A) CAPACITY.—The capture of not less  
15                than eighty-five percent of the produced carbon  
16                dioxide at the facility, and not less than  
17                500,000 short tons of carbon dioxide per year.

18                (B) STORAGE AGREEMENT.—A binding  
19                agreement for the storage of all of the captured  
20                carbon dioxide in—

21                    (i) a field testing validation activity  
22                    under section 963 of the Energy Policy Act  
23                    of 2005, as amended by this Act; or

24                    (ii) other geological storage projects  
25                    approved by the Secretary.

1           (C) PURITY LEVEL.—A purity level of at  
2           least 95 percent for the captured carbon dioxide  
3           delivered for storage.

4           (D) COMMITMENT TO CONTINUED OPER-  
5           ATION OF SUCCESSFUL UNIT.—If the project  
6           successfully demonstrates capture and storage  
7           of carbon dioxide, a commitment to continued  
8           capture and storage of carbon dioxide after the  
9           conclusion of the demonstration.

10          (4) COST-SHARING.—The cost-sharing require-  
11          ments of section 988 of the Energy Policy Act of  
12          2005 shall apply to this section.

13          (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
14          authorized to be appropriated to the Secretary to carry  
15          out this section \$100,000,000 per year for fiscal years  
16          2009 through 2013.

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